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FAMILIAR WILD FLOWERS

FIGURED AND DESCRIBED BY

F. EDWARD HULME, F.L.S., F.S.A.

" Not worlds on worlds in phalanx deep
Need we to prove a God is here ;
The daisy, fresh from Nature's sleep,
Tells of His hand in lines as clear.
For who but He who arched the skies,
And pours the day-spring's living flood,
Wondrous alike in all He tries,
Could raise the daisy's crimson bud,
And fling it, unrestrained and free,
O'er hill and dale, and desert sod,
That man, where'er he walks, may see
In every step the stamp of God ?"

Good.

Fifth Series

WITH COLOURED PLATES

580
H87
vol. 5 *

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SUMMARY.

It should be prefaced that this summary merely professes to give a brief epitome of each of the plants represented in this volume, and that it is principally a condensation from the writings of Hooker, Lindley, Bentham, or other authorities on the subject.*

AUTUMNAL HAWK-BIT, *APARGIA AUTUMNALIS*. *Nat. Ord., Compositæ*.—Florets all ligulate and perfect, bright yellow. Stamens five, their anthers syngenesious. Receptacle naked. Involucre unequally imbricated, bracts closely appressed, tapering. Pappus feathery, without bristles; brown. Summit of peduncle enlarged. Achene beaked. Flower-stems erect, wiry, branching, bearing single flower-heads, slightly hairy. Leaves long, narrow, pinnatifid, lobed.—Meadows and banks. July, August, September. Perennial. *p. 1.*

COMMON MALLOW, *MALVA SYLVESTRIS*. *Nat. Ord., Malvaceæ*.—Calyx five-cleft; and a three leaved involucre. Corolla of five petals, regular, obcordate; purplish-red, with darker veins. Flowers clustering at axils. Stamens numerous, monadelphous. Carpels numerous, arranged in ring, single-seeded. Style much divided. Leaves alternate, stipulate, stalked, orbicular, deeply lobed, serrate. Stem erect, branching, hairy.—Roadsides, wastes, and rubbish-heaps. June, July, August. Perennial. *p. 5.*

COMMON AVENS, *GEUM URBANUM*. *Nat. Ord., Rôsaceæ*.—Calyx of ten segments, alternate and outer ones very small. Corolla of five equal spreading petals, perigynous, small; bright yellow. Stamens numerous, perigynous; anthers two-celled. Styles terminal. Carpels numerous, in a compact head, ending in long awns, which are hooked at tip. Stem leaves sessile, ternate; radical leaves stalked, interruptedly pinnate; all coarsely serrate. Stem erect, slightly branching, stipules large, foliaceous, serrate. Root-stock short, slightly creeping, aromatic.—Hedges, woods, shady banks. June, July, August. Perennial. *p. 9.*

* See Prefatory Note to the Summary, Series I.

MEADOW SAFFRON, *COLCHICUM AUTUMNALE*. *Nat. Ord., Melanthaceæ*.—Perianth tubular, rising from a spathe, petaloid, pale purple, six-partite at summit, tube very long and attenuated. Stamens six, perigynous. Ovary with three cells, many-seeded. Styles three, thread-like, very long. Capsule three-valved. Leaves linear-lanceolate, parallel-veined, sheathed at base, radical, eight or ten inches long. Root bulbous. The leaves and fruit are developed in the spring, and die away before the flowers appear.—Meadows and hedgerows. August, September, October. Perennial. p. 13.

SCENTLESS MAYWEED, *MATRICARIA INODORA*. *Nat. Ord., Compositæ*.—Outer florets ligulate, white; florets of the disk numerous, small, yellow, tubular. Receptacle naked, hemispherical. Flower-heads large, and on long, terminal peduncles. Involucre covered with imbricated and scaly bracts. Achene ribbed conspicuously. Leaves two or three times pinnate, with filiform segments, sessile, shining, alternate. Stems rigid, furrowed, spreading.—Waysides and fields. June, July, August, September, October. Annual. p. 17.

WOOD SAGE, *TEUCRUM SCORODONIA*. *Nat. Ord., Labiatæ*.—Calyx tubular, five-toothed. Corolla irregular, shorter than stamens, monopetalous, five-lobed, upper lip very small. Flowers in pairs in lateral and terminal racemes, having a bract at each pedicel. Stamens four, ascending, parallel, didynamous, two lower ones longer than the others. Stigma two-lobed. Leaves in pairs, much wrinkled, stalked, coarsely serrate. Stems erect, hairy, square. Root-stock creeping.—Woody hill-sides, stony banks. July, August. Perennial. p. 21.

CREEPING THISTLE, *CNICUS ARVENSIS*. *Nat. Ord., Compositæ*.—Florets tubular. Pappus sessile, deciduous, plumose. Receptacle bristly. Achenes compressed, glabrous. Flower-heads rather small, in terminal corymbs, globose. Involucre ovate, scales large, appressed, terminating in slight spine. Leaves alternate, narrow, pinnatifid, spinous, waved, shining, embracing stem. Root creeping. Stems erect, slightly branching.—Fields and roadsides. July, August. Perennial. p. 25.

WATER-RAGWORT, *SENECIO AQUATICUS*. *Nat. Ord., Compositæ*.—Involucre hemispherical, bracts linear. Florets of the ray spreading and conspicuous, bright yellow, ligulate, often rolled back. All florets perfect. Stamens five, having their anthers synergous and without bristles at base. Style one, little longer than

corolla, sheathed by anther-tube; stigmas in two rows on bifid style. Flower-heads large, on long stalks, loosely corymbose. Achenes terete, glabrous. Pappus pilose. Leaves lyrate, pinnatifid, serrate, the lower ones undivided; alternate. Stems herbaceous, freely branching.—Damp meadows, sides of water-courses. July, August. Perennial. p. 29.

TANSY, *TANACETUM VULGARE*. *Nat. Ord., Compositæ*.—Flower-heads discoid, numerous. Florets tubular, uniform, homochromous, bright yellow. Inflorescence corymbose. Involucre hemispherical, imbricated. Achene angular. Leaves large, pinnate, each segment deeply toothed and divided, alternate, strongly smelling when bruised. Stem erect, stout. Root-stock large and creeping.—Roadsides and hedgerows. August and September. Perennial. p. 33.

WOOD-VETCH, *VICIA SYLVATICA*. *Nat. Ord., Leguminosæ*.—Calyx gibbous at base. Corolla papilionaceous; white, standard veined with violet. Stamens diadelphous, nine together and one separate. Ovary one-celled. Style one, pubescent; stigma one. Flowers in long racemes. Legume one-celled, two-valved, several-seeded. Leaves alternate, pinnate; six to ten pairs of leaflets, the common petiole ending in a long and branching tendril; leaflets oblong or ovate, and notched at top. Stipules deeply cut. Stem long, weak, climbing by aid of the tendrils.—Open woods in hilly and mountainous districts. June, July, August. Perennial. p. 37.

COMMON SOW-THISTLE, *SONCHUS OLERACEUS*. *Nat., Ord., Compositæ*.—Florets all ligulate, perfect; pale yellow. Receptacle naked. Involucre imbricated with two or more rows of unequal scales, tumid, drum-shaped before flowering, conical afterwards, glabrous. Stamens five; anthers syngenesious. Ovary one. Style one, sheathed by the anthers, filiform, bifid at apex; stigmas on inner surface of bifid style. Achene much compressed, beakless. Pappus soft, filiform. Inflorescence a corymbose panicle. Stems thick, hollow, tall. Lower leaves pinnatifid, with large terminal lobe; upper leaves narrow, lanceolate, slightly lobed, stalkless, clasping stem, all serrate. A variable plant; very freely seeding.—Gardens, rubbish-heaps, waste ground. June, July, August. Annual. p. 41.

LEOPARD'S-BANE, *DORONICUM PARDALIANCHES*. *Nat. Ord., Compositæ*.—Florets collected into one head on receptacle; central florets tubular, outer florets ligulate, numerous. Heads heterogamous. Florets of the ray without a pappus. Receptacle naked. Involucre hemispherical, clothed with double row of equal linear scales. Achene

terete. Flower-heads on long peduncles, few in number. Leaves few in number; radical leaves on long petioles, cordate; intermediate leaves with the petiole expanded at base into two clasping ears; upper leaves clasping and sessile. Stems erect, slightly branching.—Rocks or woods, and as an outcast from gardens. May, June, July. Perennial. *p.* 45.

HERB-ROBERT, *GERANIUM ROBERTIANUM*. *Nat. Ord.*, *Geraniaceæ*.—Calyx angular, hairy, five-cleft, imbricate in bud, segments erect during flowering, connivent afterwards. Flower of five petals, regular, pink, obovate, entire, clawed. Stamens ten. Ovary five-lobed, five-celled, beaked. Fruit of five carpels. Peduncles two-flowered. Leaves in three or five radiating pinnate segments. Stems much branched. Whole plant hairy and strong-smelling, often turning bright red. Brittle.—Waste ground, hedge-banks, old walls. May, June, July, August, September. Annual. *p.* 49.

WOODY NIGHTSHADE, or BITTER-SWEET, *SOLANUM DULCAMARA*. *Nat. Ord.*, *Solanaceæ*.—Calyx of five divisions. Corolla monopetalous, regular, cleft into five revolute segments, dull purple. Anthers almost sessile, bright yellow, joined into a cone in the centre of the flower, round the style; stamens, inserted into corolla, five, and alternating with its segments. Inflorescence a loose cyme. Berries ovoid, crimson. Leaves varying in form, entire; lower ones lanceolate; upper ones hastate, petioled. Stems long, flexuous, climbing or straggling.—Low-lying hedges and moist thickets. June, July, August. Perennial, but long trailing stems dying off in winter. *p.* 53.

CORN-COCKLE, *AGROSTEMMA GITHAGO*. *Nat. Ord.*, *Caryophyllaceæ*.—Calyx tubular, monophyllous, the five linear lobes projecting very conspicuously beyond the corolla; coriaceous, deeply furrowed, hairy. Corolla regular; petals large, broad, undivided, purplish-red, without scales, clawed. Flowers on long peduncles, growing singly from axils of leaves. Stamens ten. Petals and stamens hypogynous. Ovary one. Styles five. Capsule one-celled, opening in five teeth. Leaves opposite, entire, narrow, hairy. Stems tall, erect, very slightly branching, hairy, swollen at nodes.—Corn-fields. June, July, August. Perennial. *p.* 57.

HEART'S-EASE, or PANSY, *VIOLA TRICOLOR*. *Nat. Ord.*, *Violaceæ*.—Calyx of five sepals, produced at base. Petals five, unequal, the lowest produced into a spur; very variable in colour. Stamens five, filaments very short; anthers connate, two of them spurred, on

inner broad surface of filaments. Style single, clavate; stigma large, capitate. Ovary one-celled, with three parietal placentas. Fruit capsular, three-valved. Stipules very large, foliaceous, deeply divided into linear lobes, crenate. Leaves oblong, deeply crenate. Stem weak, angled, branching freely.—Cultivated fields and waste ground. May, June, July August, September. Annual or biennial. Very variable.

p. 61.

SHINING CRANE'S-BILL, *GERANIUM LUCIDUM*. *Nat. Ord., Geraniaceæ*.—Calyx angular, pyramidal, of five sepals. Petals five, clawed, small; delicate pink. Peduncles two-flowered. Stamens ten—five long, five short; anthers conspicuous, bright yellow. Styles five. Ovary five-lobed, five-celled. Fruit with five lobes, the carpels arranged round central axis, curling upwards when ripening; a long beak. Leaves orbicular, palmately lobed, lobes obtusely notched, on long stalks, opposite, very glossy, often (like the stems) turning a bright red. Stems spreading, glossy, swelling at the joints, brittle.—Rocks, old walls. May, June, July, August. Annual.

p. 65.

RAGGED ROBIN, *LYCHNIS FLOS-CUCULI*. *Nat. Ord., Caryophyllaceæ*.—Calyx tubular, ribbed, monophyllous, five teeth, brownish-red. Corolla regular, of five petals, very deeply cut into lobes; clawed; appendage at base of limb. Petals and stamens hypogynous. Flowers in loose terminal panicle. Stamens ten. Styles five. Ovary one. Capsule stalked, globular, opening by five teeth. Seeds numerous. Leaves few, linear-lanceolate, entire, opposite, exstipulate. Stems erect, slender, swelling at nodes.—Damp meadows, sides of water-courses. May, June. Perennial.

p. 68.

SNOWDROP, *GALANTHUS NIVALIS*. *Nat. Ord., Amaryllidaceæ*.—Perianth in six divisions, the three inner being shorter than the alternate three; outer ones white, oval, spreading; inner ones pendant, emarginate, white tipped with green. All the segments quite distinct down to the ovary. Stamens six; filaments very short, inserted at the base of the segments; anthers opening at the top. Style one; stigma three-lobed. Ovary three-celled. Fruit a capsule, three-valved, numerous seeds. Flowers spring from a spathe, singly. Leaves radical, two, linear, parallel-veined, short and erect at flowering-season, but afterwards growing considerably, and becoming drooping. Bulbous root.—Woods, orchards, hedges. February, March. Perennial.

p. 69.

SNOWFLAKE, *LEUCOJUM ÆSTIVUM*. *Nat. Ord.*, *Amaryllidaceæ*.—Perianth in six nearly equal segments, campanulate, drooping, pure white tipped with green, ovate, broad. Stamens six, inserted in base of segments; anthers large, opening inwards near the apex. Style one, club-shaped; stigma three-lobed. Ovary three-celled. Fruit a capsule. Scape flattened in cross-section. Inflorescence, four or five flowers springing from a spathe. Leaves long, linear, parallel-veined, all radical, fleshy, keeled. Root bulbous.—Moist meadows. April, May. Perennial. p. 70.

MEADOW VETCHLING, *LATHYRUS PRATENSIS*. *Nat. Ord.*, *Leguminosæ*.—Calyx oblique, upper segments shortest. Corolla papilionaceous; yellow. Stamens diadelphous. Inflorescence a raceme. Style one; stigma one. Ovary one-celled. Fruit a pod or legume, two-valved, many-seeded, glabrous. Stipules large, sagittate. Leaflets lanceolate, in pairs. Tendrils long and branched, terminating leaf-stalk. Stem angled, weak, much-branched, climbing.—Hedges, in damp meadows, and low-lying pastures. July, August. Perennial. p. 73.

GREATER CELANDINE, *CHELIDONIUM MAJUS*. *Nat. Ord.*, *Papaveraceæ*.—Calyx of two sepals, falling away on expansion of flower. Petals four, oval, bright yellow, crumpled. Stamens numerous. Stigma two-lobed, small. Ovary linear. Pod long and narrow, opening in two valves from the base. Seeds crested. Flowers in umbels on long stalks. Stem and leaves slightly hairy, full of a yellow and very acrid juice: stems brittle. Leaves pinnate, segments ovate, decurrent, coarsely lobed, crenate.—Waste ground and hedge-banks: May, June, July, August. Perennial. p. 77.

GROUND IVY, *NEPETA GLECHOMA*. *Nat. Ord.*, *Labiataæ*.—Calyx tubular, ribbed, five-toothed, the upper teeth the longest, recurved. Corolla monopetalous, upper lip bifid, lateral lobes, spreading, purplish blue, tube of corolla twice as long as calyx. Stamens four, the two upper ones the longest. Stigma two-lobed. Flowers four to six, in unilateral whorls, springing from the axils of the leaves, stalked. Stem square. Leaves in pairs, reniform, crenate, stalked, downy, dark green, the lower leaves on much longer stalks than the upper. The whole plant rather rough and hairy to the touch, strong-smelling, creeping and rooting at the base, stretching some distance; flowering stems ascending; branching freely.—Hedges and waste ground. March, April, May. Perennial. p. 81.

PRICKLY-HEADED POPPY, *PAPAYER ARGEMONE*. *Nat. Ord.*, *Papaveraceæ*.—Calyx of two sepals, falling off on flowering. Corolla of four petals; pale scarlet, and often with a dark spot at base. Stamens very numerous, distinct, dark in colour. Ovary one-celled. Stigma rayed, sessile. Fruit a capsule, oblong, having several short, bristly hairs, especially on upper half. Leaves alternate, pinnatifid. The whole plant somewhat hairy.—Corn-fields and waste ground. May, June, July. Annual. p. 85.

HEATHER, *ERICA CINEREA*. *Nat. Ord.*, *Ericaceæ*.—Calyx of four small and narrow sepals, persistent. Corolla ovoid, four-lobed, crimson, drooping. Flowers in dense terminal racemes, whorled. Stamens eight; anthers two-celled. Style and stigma one. Fruit capsular, four-celled. Leaves generally three in a whorl, having fascicles of small leaves in their axils; linear, dark green. Stem grey and wiry. Growth bushy.—Dry wastes, commons, mountain-sides. July, August, September. Perennial. p. 89.

DOVE'S FOOT CRANE'S-BILL, *GERANIUM MOLLE*. *Nat. Ord.*, *Geraniaceæ*.—Calyx of five persistent sepals. Corolla regular, five deeply-notched, heart-shaped petals, clawed, pink, fugacious. Stamens ten, alternately long and short. Ovary five-lobed, terminating in long awn or beak. Stigmas five. Flowers in pairs on peduncles. Leaves round, deeply lobed, hairy; lower leaves numerous, on long stalks, freely-lobed; upper leaves fewer, smaller, less cut into segments. Stems weak, spreading, often red in colour, hairy.—Dry pasturage, banks, and roadsides. May, June, July, August. Annual. p. 93.

CENTAURY, *ERYTHRÆA CENTAURIUM*. *Nat. Ord.*, *Gentianaceæ*.—Calyx five-cleft, half as long as tube of corolla, persistent, segments linear. Corolla regular, infundibuliform, pink, limb five-cleft, spreading, stellate. Stamens five. Anthers twisted. Stigmas two. Inflorescence paniculate. Capsule linear, two-celled. Stem-leaves opposite, exstipulate, ovate, oblong. Root-leaves spreading, broader than those of the stem. Stem erect, nearly simple, glabrous. Whole plant bitter to taste.—Dry pastures. June, July, August, September. Annual. p. 97.

ORPINE, *SEDUM TELEPHIUM*. *Nat. Ord.*, *Crassulaceæ*.—Calyx minute, fleshy, five-pointed segments. Corolla regular, of five lanceolate acutely-pointed, pink, flat, widely-extended petals. Stamens

ten; anthers conspicuous. Inflorescence corymbose, dense, terminal. Ovaries five, verticillate, one-celled. Leaves numerous, upright, sessile, ovate, serrate, smooth, fleshy. Stalks numerous, erect, clustered, unbranched, round, solid, spotted with red.—Borders of fields, waste places, hedge-banks. July, August. Perennial. p. 101.

SWEET BRIAR, *ROSA RUBIGINOSA*. *Nat. Ord., Rosaceæ.*—Calyx tube ovoid; calyx segments, five in number. Corolla of five petals, pink, fragrant. Flowers often solitary. Stamens numerous. Achenes numerous. Fruit pear-shaped. Leaves pinnate, glandulose, fragrant, small, much-toothed, stipulate. Stem prickly. Bush or shrub.—Hedges and thickets; often cultivated. Perennial. Flowering throughout summer. p. 105.

LARGER KNAPWEED, *CENTAUREA SCABIOSA*. *Nat. Ord., Compositæ.*—Florets of the disk perfect; florets of the ray large, funnel-shaped, spreading, irregular, neuter; all the florets purple. Involucre large, ovate, imbricated, the scales green, with a very conspicuous black fringe. Receptacle bristly. Stamens five; anthers large, purple, syngenesious. Style one, sheathed by the anthers, filiform, bifid at apex; stigmas on inner surface of bifid style. Achenes glabrous; short pappus. Stem strong, wiry, freely branching. Leaves long, deeply pinnatifid; lobes lanceolate, coarsely serrate.—Roadsides and poor pastures. July, August, September. Perennial. p. 109.

LESSER RED-RATTLE, *PEDICULARIS SYLVATICA*. *Nat. Ord., Scrophulariaceæ.*—Calyx angular, glabrous, persistent, inflated, teeth foliaceous, segments five, unequal. Corolla monopetalous, irregular, deciduous, ringent, open at throat; upper lip compressed and arched; lower one flat and three-lobed. Stamens four, didynamous, two of them hairy. Style one. Stigma two-lobed. Capsule two-celled, compressed; seeds angular. Leaves, alternate, pinnate, deeply-serrated. Stem branched and spreading.—Moist pasturage and waysides. April, May, June, July. Perennial. p. 113.

SEA-LAVENDER, *STATICE LIMONIUM*. *Nat. Ord., Plumbaginaceæ.*—Calyx tubular, expanded at top; five-lobed; dry and membranaceous. Corolla of five petals, united at their bases, and carrying the stamens; petals a bluish purple. Stamens five. Ovary single, one-cell. Styles and stigmas five. A small bract below each flower. Inflorescence unilateral, spikes forming paniculate, corymbose masses of blossom. Flower-stem erect, freely branching, leafless.

Leaves radical, obovate, lanceolate, on long stalks; dark-green, glossy, thick in texture.—Salt-marshes and mud-covered shores. July, August, September. Perennial. p. 117.

HEDGE CALAMINT, *CALAMINTHA CLINOPODIUM*. *Nat. Ord., Labiatae*.—Calyx tubular, two-lipped, thirteen-veined, nearly equal at base, five acute teeth. Corolla monopetalous, hypogynous, irregular; upper lip straight, nearly flat, three-lobed; lower lip two-lobed. Flowers in dense, sessile whorls in the axils of the leaves. Stamens four, the two anterior the longest. Ovary one, four-lobed. Stigma two-lobed. Bracts linear, numerous. Stem square in section, weak. Leaves opposite, ovate, stalked. Slightly serrate, soft to the touch.—Hedges, borders of copses. July, August, September. Perennial. p. 121.

RAG-WORT, *NECIO JACOBCEA*. *Nat. Ord., Compositae*.—Calyx adherent with ovary. Florets all perfect. Involucre having one row of equal scales, and a few smaller ones at base. Stamens five. Anthers syngenesious, ecaudate. Ovary one. Style one, sheathed by anther-tube, bifid at apex. Stigmas on inner surface of the two branches of style. Receptacle naked. Heads of flowers in corymbs. Fruit an achene, terete, pappus, pilose. Leaves pinnate or pinnatifid, lyrate, very variable in form and size, segments toothed, glabrous. Stems erect, striate, branched near the summit.—Roadsides, waste ground, neglected meadows. July, August, September. Perennial. p. 125.

FIELD THISTLE, *CARDUUS ACANTHOIDES*. *Nat. Ord., Compositae*.—Florets all equal, crimson, tubular. Receptacle large, having bristles between the florets. Achenes glabrous. Pappus of simple hairs. Flower-heads often slightly drooping, globose, aggregated. Involucre globose, clothed with linear, imbricated, sharply-pointed bracts. Leaves pinnatifid, spinous, decurrent. Stem erect, prickly, and fringed with decurrent bases of leaves.—Waste lands and waysides. June, July, August. Annual. p. 129.

TUBEROUS PEA, *OROBUS TUBEROSUS*. *Nat. Ord., Leguminosae*.—Calyx five-toothed, obtuse at base, oblique at mouth. Corolla papilionaceous, purple, veined. Style linear. Stigma one. Stamens ten, diadelphous. Legume two-valved, several-seeded, long, pendulous, black, cylindrical. Leaves pinnate, without tendrils, stipulate, three or four pairs of leaflets. Stipules sagittate. Flowers in axillary racemes, borne on long peduncles. Stem winged. Root tuberous.—Woods and copses. May, June, July. Perennial. p. 133.

RED BARTSIA, *BARTSIA ODONTITES*. *Nat. Ord.*, *Scrophulariaceæ*.—Calyx tubular, dull red, quadridentate, hirsute, teeth equal and sharp. Corolla monopetalous, ringent, irregular; upper lip convex and notched; lower lip divided into three equal obtuse segments. Stamens four, didynamous, unequal. Style filiform, at first beneath upper lip of corolla, but afterwards longer. Stigma two-lobed. Fruit an oval, oblong, compressed capsule, two-celled, many-seeded. Inflorescence, numerous long, erect, racemes, often nodding at summit, and having the blossoms thrown out in one direction. Bracts lanceolate, upright, dull purplish. Leaves opposite, sessile, lanceolate, turning back, slightly serrate, hirsute. Stem upright, freely branching, hirsute, square.—Corn-fields, roadsides, and waste ground. June, July, August. Annual. p. 137.

MILK THISTLE, *CARDUUS MARIANUS*. *Nat. Ord.*, *Compositæ*.—Flower-heads on summits of branches, large, purple; florets perfect, infundibuliform, with curved tube, segments five, equal, linear. Filaments short, monodelphous; anthers purple. Ovary ovate, surmounted by filiform style. Stigma bifid. Receptacle pilose. Fruit angular, wrinkled, crowned with simple and rigid pappus. Involucre of many imbricate and recurved scales, spinous at apex and on margins, subfoliaceous. Leaves large, alternate, sinuate, spiny, veined with white; lower leaves spreading, pinnatifid; upper ones waved, amplexicaul, ovate-lanceolate. Stems erect, firm, branched, striate.—Hedges, banks, rubbish-heaps. June, July. Biennial. p. 141.

HEDGE STACHYS, *STACHYS SYLVATICA*. *Nat. Ord.*, *Labiataæ*.—Calyx sub-campanulate, five-toothed, ten-ribbed. Corolla monopetalous, hypogynous, irregular, tubular, upper lip erect, entire, concave; lower lip lobed and spreading. Flowers in whorls, forming terminal spikes. Stamens four, two larger than the other two. Ovary one, deeply four-lobed. Stigma two-lobed. Achenes four. Leaves opposite, large, cordate, crenate, stalked, hairy. Strongly smelling. Root-stock creeping. Stem hairy, square in cross section.—Woods and shady banks. June, July, August. Perennial p. 145.

CORN BLUE-BOTTLE, *CENTAUREA CYANUS*. *Nat. Ord.*, *Compositæ*.—Flower-heads capitate; flowers tubular, five-toothed. Florets of the ray few, large, bright blue, infundibuliform, neuter; florets of the disk, small, dark purple, fertile. Stamens five, inserted on corolla. Filaments distinct, anthers united. Ovary adherent to calyx. Style single, sheathed by anthers. Stigma bifid. Fruit an

achene, with simple pappus. Seed solitary. Involucre covered with imbricated brown scales. Leaves alternate, long dull green; lowering, with numerous fibrous tufts.—Waste places, hedgerows. July, August, September. Perennial. p. 149.

FRITILLARY, *FRITILLARIA MELEAGRIS*. *Nat. Ord., Liliaceæ.*
—Perianth petaloid, campanulate, of six distinct pieces; nectariferous depressions at base; ordinarily chequered, but sometimes white. Stamens six, inserted at base of perianth. Style one, three-cleft at apex. Fruit dry, capsular, three-celled. Stem single-flowered. Leaves linear-lanceolate, alternate, parallel-veined. Root bulbous.—Meadows. April, May. Perennial. p. 153.

WATER FIG-WORT, *SCROPHULARIA AQUATICA*. *Nat. Ord., Scrophulariaceæ.*—Calyx persistent, five-lobed. Sepals having membranous margin. Corolla monopetalous, irregular, deciduous, globose; two short lips, one two-lobed and straight, the other three-lobed, and having central lobe decurved, dull purple. Stamens four, didynamous. Style one. Stigma two-lobed. Flowers in terminal and long panicles. Capsule two-celled, two-valved. Leaves glabrous, opposite, cordate-oblong, obtuse, crenate; bracts small and linear. Stem erect, winged.—By the sides of water-courses. June, July, August, September. Perennial. p. 157.



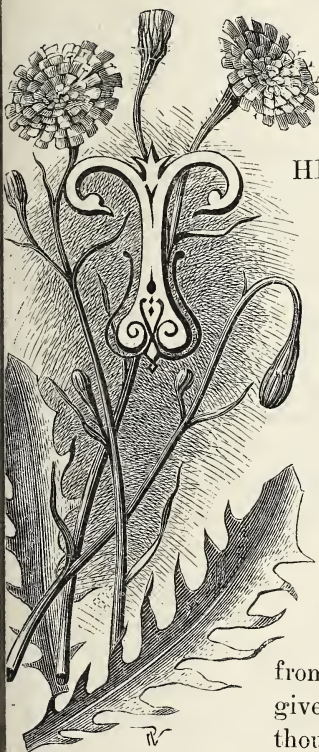


AUTUMNAL HAWKBIT.

FAMILIAR WILD FLOWERS.

THE AUTUMNAL HAWK-BIT.

Apargia autumnalis. Nat. Ord., Com-
positæ.



THE plant we have here figured is one of the most common of several very similar-looking herbs. It is a perennial, and abundantly distributed throughout Britain in meadow land, and on commons and other such waste spaces of ground. It flowers about August.

The autumnal hawk-bit has several long and spreading radical leaves that are divided into more or less regular lateral lobes, and are sometimes thickly covered with stiff hairs, that, from their number and grey colour, give a kind of bloom to the leaf, though at other times the leaves are almost or entirely destitute of

them. From this ring of leaves the flower-stems rise boldly up, and then presently branch off into two or three peduncles that bear the flower-heads. These are ordinarily quite destitute of hairs, but have at intervals

several scales placed singly; these are long and narrow, and pointing upwards. The summit of the peduncle, where it joins the involucre, is enlarged and swollen-looking. The flower-heads themselves are rather large, and of a brilliant yellow, and form by far the most noticeable part of the plant, as, when seen growing, its small leaves are lost in the surrounding herbage, and its fine stems do not catch the eye at all.

The autumnal hawk-bit is by some botanists placed in the genus *Leontodon*, and called the *L. autumnalis*, while others place it in *Apargia*, and called it *A. autumnalis*. The generic name *Leontodon* is derived from two Greek words signifying lion-tooth: the reason for this will be found in our remarks on the dandelion. *Apargia* is derived from the name bestowed by the Greeks on this or some similar plant, this name being taken from the two Greek words meaning from idleness; the implication being that it is nothing but the idleness of the agriculturist that allows such plants to spring up in his ground. The specific name, it will be seen, in each case is the same; it is too evident in meaning to call for any remark. Two or three varieties of this species are recognised, and one or more species have been included in the genus. The plant was at one time placed in the genus *Hieracium*, a name, Greek in its origin, which refers to an ancient belief that hawks eat these plants to sharpen their sight, a belief that is also indicated in the names hawk-bit or hawk-weed. There are, as we have already said, several plants that strongly resemble the present species, and they have consequently given a great deal of trouble to classify. Of the hawk-weeds alone there are, according to one writer, seven species, while according to another there are thirty-three. Some

observers attach importance to features which seem to others comparatively worthless, hence, not only the species, but even the genera in which they are to be placed are by no means definitely accepted. The subject is one with which amateurs can scarcely deal, and we only refer to the difficulties at all, because in so doing we thus account for the various names that the plant has borne at one period or another, or in the system of classification of one or other observer.

As this is a very fairly typical composite flower, a few words on the family to which it belongs will not be out of place. The *Compositæ* family of flowering plants, from the striking and exclusive features they possess in common are at once readily distinguished from all others, but are on the same account very difficult to deal with so as to discriminate properly between them. In every case the florets are collected into heads on the summit of the stalk, and these at their base are surrounded by the involucre, a cup-like form composed of rings of bracts. The style of the pistil is divided at the top into two parts, which curl downwards in a scroll form: they may be clearly seen in the succory. The corolla of each floret is either tubular and regular in form, or else this tube is split down nearly to its base and then flattened into a ribbon-like form. In some of these plants all the florets are tubular: the thistles may be taken as a good example of this section. The nodding thistle, the spear-plume thistle, and the burdock may be referred to as illustrations.

A second section is composed of plants in which all the florets are ligulate, that is to say of the long strap or ribbon-like form. Examples of these may be seen in the dandelion, the succory, the corn sow-thistle, the common

sow-thistle, the subject of the present plate, and the nipplewort.

The third great section is that wherein each flower-head contains both types of flower. In this case the tubular flowers are always in the centre, and are called the florets of the disk, while the ribbon-like forms constitute the outer ring, and are called the florets of the ray. For examples of this type the reader may turn to the daisy, the ox-eye, the rag-wort, the mayweed, or the yarrow.

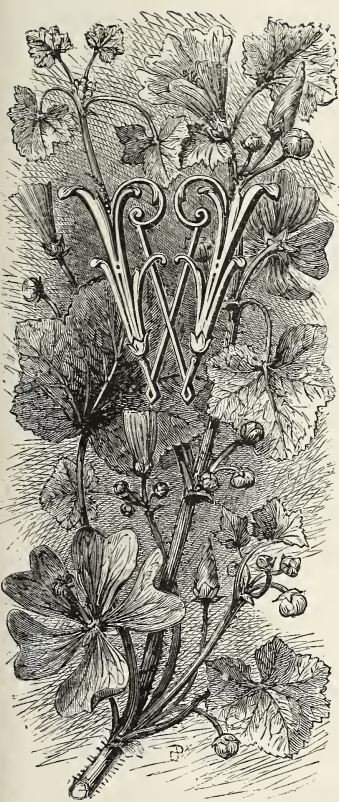
In the first of these divisions the florets are generally purple, in the second they are almost always yellow, while in the third the disk is ordinarily yellow, and the rays white.







COMMON MALLOW



THE COMMON MALLOW.

Malva sylvestris. Nat. Ord., *Malvaceæ.*

WE have some six or seven plants called mallows, indigenous to Britain, but of these the plant represented is by far the most common in almost all localities. It appears to thrive equally well in all geological formations, and throughout England and Ireland is of very frequent occurrence, few waste places or wayside banks being unclothed with its large masses of foliage. In Scotland it is, however, by no means common, and in the northern part is almost if not quite unknown. It will ordinarily be found in flower by about the beginning of June, after which date it may be met with in profusion until the end of September, and isolated specimens will be occasionally met with even up till December if the season be mild.

All our mallows agree in several conspicuous points, and

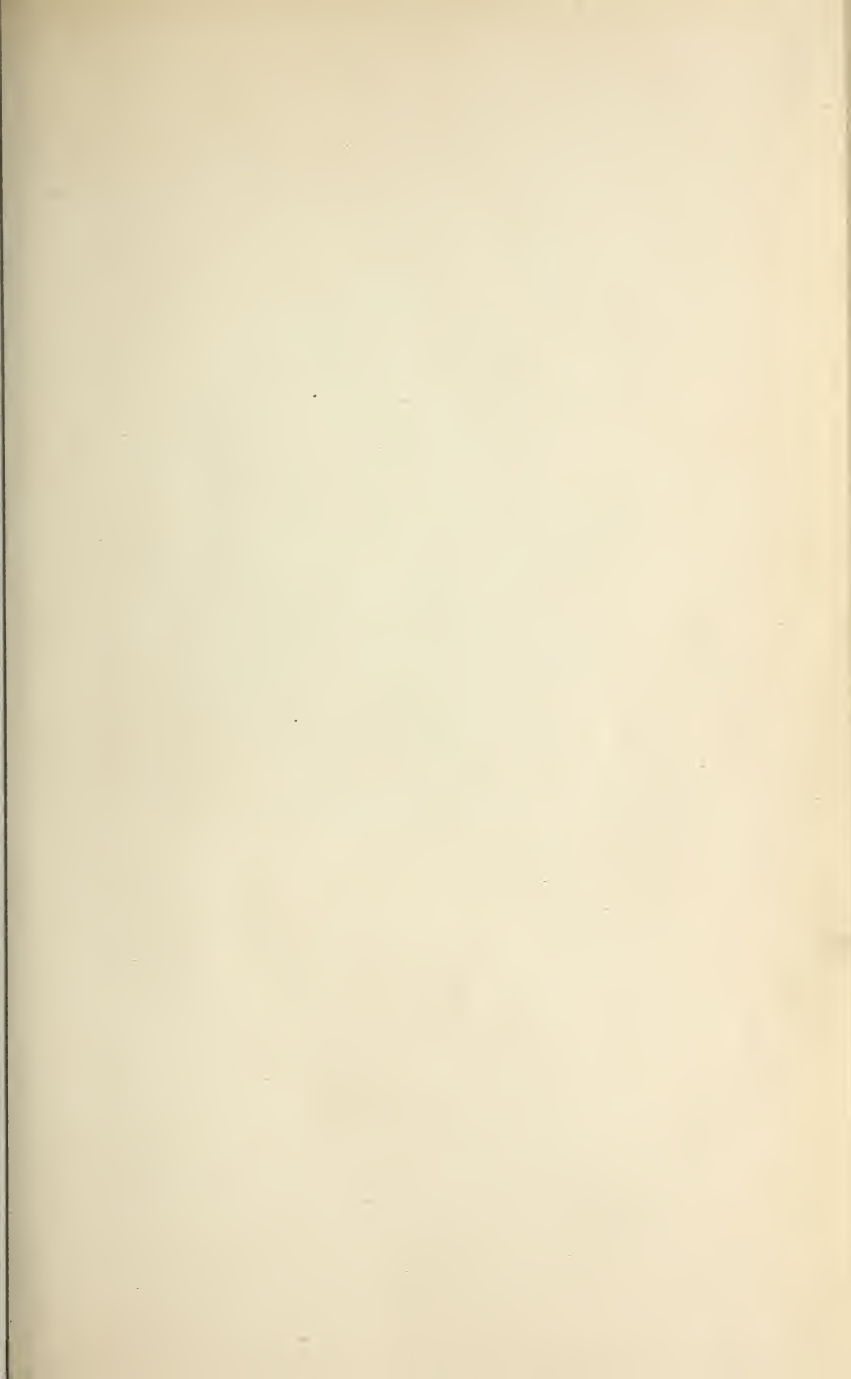
to these points we may at once call attention. All are herbs, soft in texture, and making no solid wood, though the stems are somewhat rough and fibrous. The leaves are always arranged alternately on the stems, and are furnished at their bases with stipulate forms; the leaves, too, are always broad and rounded in general outline, the veins all radiating from one point at their base like the spokes of a wheel or the folds of a fan. The flowers are always regular in form—that is to say, they are made up of a circular series of similar forms, and are therefore multi-symmetrical (not bi-symmetrical, or having only their halves alike, as in the pansy or ground ivy blossoms) when looked down upon in plan view. The calyx is composed of five parts, arranged in a valvate manner in the unopened bud, their margins being in contact, while the parts do not overlap at all. The term is derived from the Latin *valvæ*, folding-doors, as the parts of the calyx all fit each regularly into their allotted spaces, like the leaves of a folding-door. At the base, or some other point on the outer surface of the calyx, three or more little leaf-like bodies called bracts will be found, forming a sort of subordinate or outer calyx, though as they are not in contact with each other, it is rather to be considered as a suggestion of a second ring, than an actual development. In most of our species these little bracts on the exterior of the true calyx are three in number, but in two they vary from six to nine. The petals are five in number, curiously twisted into a spiral before expansion, as may clearly be seen in the half-opened buds and flowers in our illustration. The stamens are very numerous, and bound together at their bases, and throughout a good portion of their length, into a pillar-like

form. This is a very characteristic feature of all members of the mallow family. The arrangement is called monadelphous, from two Greek words signifying one brotherhood. The style is either composed of one or more members having several stigmata. The fruit is a capsule made up of several parts arranged in a ring round the base of the style. By country children they are often called "cheeses," from their circular yet flattened form, and are freely eaten by them. They are quite harmless, and any number apparently may be eaten with impunity. The hollyhock of our gardens is a cultivated species of mallow, and all the points we have above referred to may be well seen in it, as its size makes it an easy matter to detect the various features of growth we have endeavoured to elucidate. The cotton-plant is another well-known species of mallow. The common mallow is botanically known as the *Malva sylvestris*. The genus was so named by Linnæus, in allusion to the soothing effect and valuable mucilaginous nature of the species, almost all of which possess emollient qualities of distinct value in the healing art. The word *malva* is derived from a Greek word signifying soft. The specific name refers to the places where the plant may often be found, and is a term of not unfrequent occurrence in botanical nomenclature. We meet with it, for instance, in the scientific name of the horse-mint, *Mentha sylvestris*, and several other plants. The plant was by the Anglo-Saxons called *Malu* or *Medlwe*. It is the *Malve* of the Germans, the *Mauve* of the French.

The common mallow is a perennial. It attains to a height of some three feet, or even more, on waste land, though by the roadside it may often be seen

in vigorous life and covered with blossoms, and barely a foot high altogether. The stems and leaves are often thickly clothed with soft hair. The leaves are all borne on long stalks, and are divided into five or seven broad and rounded lobes. The outline is serrate. The flowers grow in clusters of half a dozen or so from the axils of the leaves. The petals are heart-shaped, reddish-purple in colour, and veined by two or three rather conspicuous lines of a darker tint of the same colour. The flowers vary somewhat in strength of colour; in some plants the tint is much deeper than in others, but beyond this the plant is very little subject to any great variation, and no difficulty, we imagine, will ever be felt by any of our readers in its identification. The plant is often called the marsh mallow in country districts. The marsh mallow is, however, another and much less common plant, and we can only conclude that "apt alliteration's artful aid" has exercised a certain fascination, and has in this case, at least, proved a snare.







COMMON AVENS AND MEADOW-BARLEY.

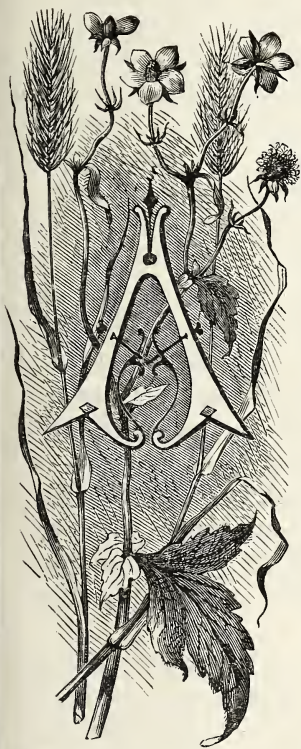
THE COMMON AVENS.

Geum urbanum. Nat. Ord., *Rosaceæ.*

AND

MEADOW BARLEY.

Hordeum pratense.



AMONGST the rank vegetation of the hedgerow the wood or common avens—the plant represented in flower in our illustration—will very commonly be found, and more especially if the situation be somewhat damp and shaded from the too direct rays of the sun; hence, too, it is very frequently met with in woods and coppices. It is a perennial, and may therefore be looked for year after year in any spot where it has once been noticed. It will ordinarily be found in flower by about the beginning of May, after which date examples more or less

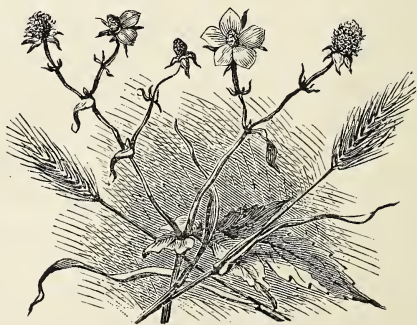
numerous may be met with until late in autumn. We have twice found it as late, indeed, as the first week in December.

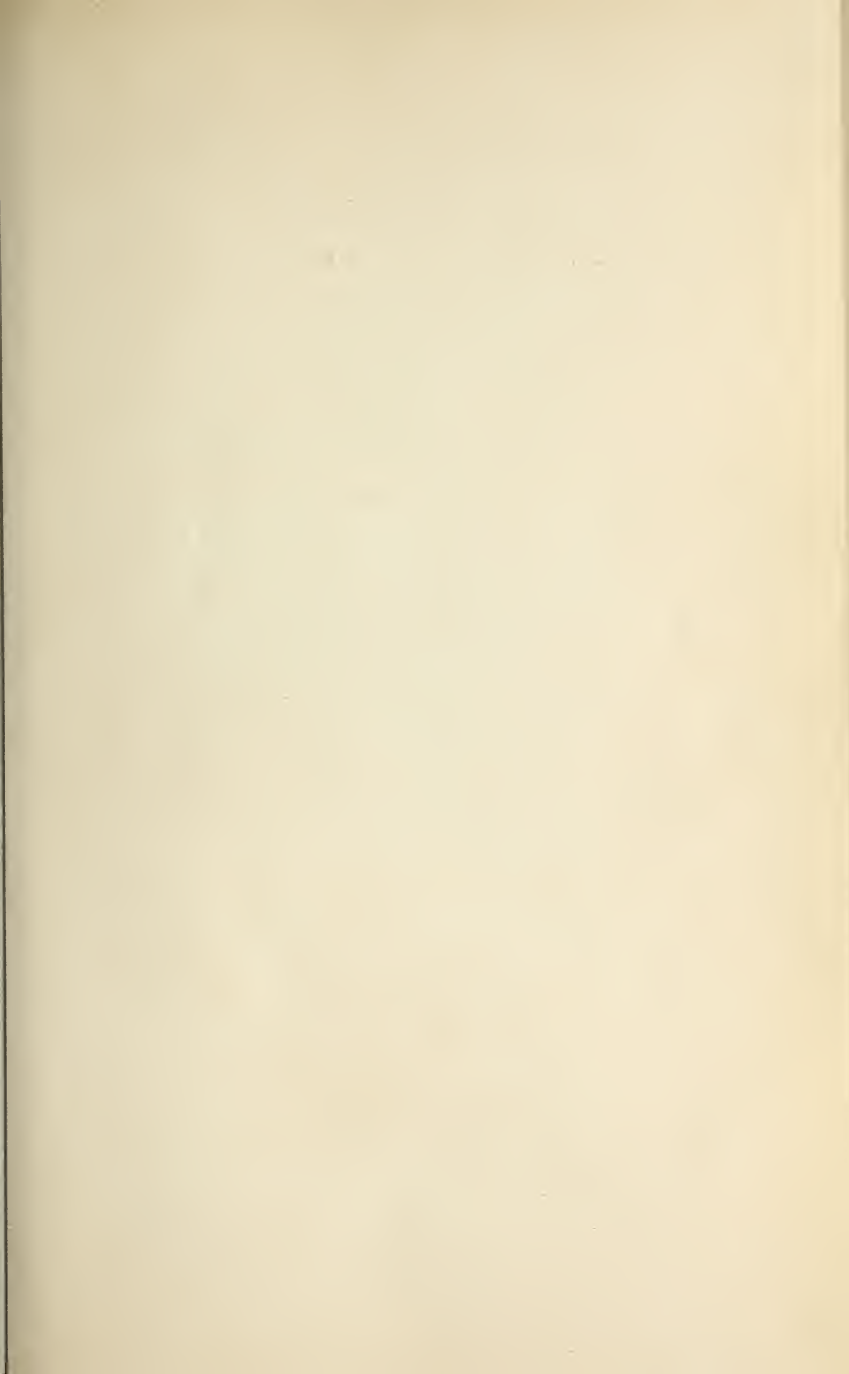
The common avens is the *Geum urbanum* of the systematic botanist. The generic title is taken from the Greek, and signifies that which is aromatic. The roots of the present species possess an agreeable odour and

the blossom is of a dark crimson colour, and the various members of which it is composed terminate in an awn, of which the extremity is curved into a little hook.

The only other indigenous plant in the genus is the *Geum rivale*, or water-avens, a plant of the moors and marshes, a lover of wet, swampy ground—one of the plants that fringe our river-banks. Though not by any means a rare plant, it is not so common as the wood-avens, and is much more local in its occurrence. The general character of the leaf is much the same, but the plant may readily be identified by its large, drooping, dull orange blossoms and sombre purple calyx.

The grass represented in our illustration is the *Hordeum pratense*, or meadow barley, a plant abundant enough in moist meadows in England, though it is very rarely met with in Scotland, and is by no means common in Ireland. It may very legitimately be introduced in our plate, as it is amongst the long grass that fringes the hedgerow that the avens delights to grow, and where the avens is found the meadow barley will ordinarily be close at hand.



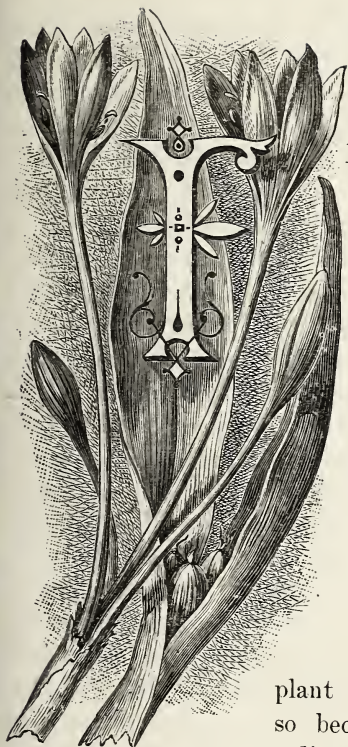




MEADOW SAFFRON.

MEADOW SAFFRON.

Colchicum autumnale. Nat.
Ord., *Melanthaceæ.*



FEW of our flowers are more delicately beautiful than the meadow saffron. Its refined colour is too pale for an altogether satisfactory representation on our white paper, but those who have seen it springing up amongst the grass of the pasture or the weeds of the hedgerow will scarcely have failed to have noticed and admired its delicate and fragile grace. This "leafless orphan of the year," much as we may admire it, is a most unwelcome plant to the farmer, and the more so because if found at all it is ordinarily abundant. We have in some places seen quite a purple flush of colour on the meadows from the presence of countless blossoms, but it is a sad blot on the pasturage to the eye of the owner, for it takes the place of much that might be edible. Though animals ordinarily carefully shun it, many instances have

occurred of fatal result to horses and cattle from an imprudent neglect of the warning instinct, and an indulgence in "the baneful juice which poisonous Colchian gleebs produce."

The meadow saffron derives its generic name from Colchis, where it was said to be found abundantly, and where its medicinal properties were first discovered; while the specific name clearly indicates the date of its flowering. The familiar name indicates its resemblance to the true saffron, the *Crocus sativus* of botanists. The meadow saffron is a somewhat local plant, being found in profusion in some districts of England and Ireland, while others may be searched in vain; in Scotland it seems to be distinctly a rare plant. The feature that will at once strike even the most unobservant is that it is absolutely leafless at the time when its lilac blossoms render it most conspicuous, so that we may gather a handful of flowers, but any verdant additions we may deem our nosegay to require must come from another source. The flowers rise from the ground to a height of some four or five inches, supported on the slender tube that rises from the subterranean bulb. The lower part of each blossom is enclosed in the membranous sheath that enwraps them all. After the season of flowering, the leaves appear, and then the seed-capsule, but all withers again before the recurring autumn blossoms. The leaves are by no means inconspicuous, for they often attain to a length of nine or ten inches, and have a breadth of over an inch; but as one never finds the leaves and flowers together, this verdant spring foliage is naturally not often associated in people's minds with flowers that will make no sign until all this show of foliage has died away. The ovary is within the tube of the flower, but so low down as to be

subterranean, and those who would desire to see the plant in its entirety will need to gather it with due care. The long, slender, almost thread-like styles that run the whole length of the floral tube are an interesting feature that a hasty gathering of the flowers is very likely to destroy. The general habit of the plant suggests the crocus, but the organs of reproduction differ considerably from those of that genus, and amply warrant its removal from it. The *Crocus nudiflorus*, or naked crocus, so called from its blossoms being thrown up from the ground in autumn, after the leaves have withered, furnished Paley, in his "Natural Theology," with a good illustration of what he terms compensation. As all he says is equally true of the present plant, we may be forgiven a quotation. He writes: "I have pitied this poor plant a thousand times. Its blossom rises out of the ground in the most forlorn condition possible, without a calyx, or even a leaf, to defend it; and that, not in the spring, not to be visited by summer suns, but under all the disadvantages of the declining year. When we come, however, to look more closely into the structure of this plant, we find that instead of its being neglected, Nature has gone out of her course to provide for its security, and to make up to it for all its defects. As this plant blossoms late in the year, and probably would not have time to ripen its seeds before the access of winter, which would destroy them, Providence has contrived its structure such that this important office may be performed at a depth in the earth out of reach of the usual effects of frost. The maturation of the seed, which in other plants is exposed with the rest of the flowers to the open air, is here carried on during the whole winter within the heart, as we may say, of the earth."

The bulb of the meadow saffron has for ages had medicinal repute, and on turning to the modern Pharmacopœia, we find various preparations of the plant duly set forth. The bulb should be gathered during July and August, its period of greatest activity; but Dr. Lindley says that he has seen many hundredweights sent up to town after the flowering-season, the flowers being broken off to conceal the fraud. We see at once that while it would be very difficult to find it in the interval between the dying of the leaves and the springing of the flowers, any one could collect the bulbs when they were guided to them by the blossoms. *Colchicum* is irritant in its effects, and in large doses is an acrid poison; and while it has a distinct value in allaying paroxysms of pain, the relief is perhaps bought at too high a price, as its general effect on the system is hurtful. Both the bulb and the seeds are used in medical practice. In France it is called *Mort au Chien*.







SCENTLESS MAYWEED



THE SCENTLESS MAYWEED.

Matricaria inodora. . Nat. Ord., *Compositæ*,

WE have in Britain several species of the great composite family all of which bear a certain general similarity to the plant figured in our present illustration, though a very slight amount of investigation and comparison will, we do not doubt, suffice to enable our readers to decide accurately as to the probable identity of any likely-looking plant with the subject of our plate. In some of these allied plants the foliage is much fuller in character than that of the present species; in others, the large yellow disk is not so convex and ball-like; in some, again, the white rays are more erect; while in others a strong scent, sometimes pleasant, but more ordinarily disagreeable, makes itself very perceptible.

The scentless mayweed may be very commonly met with in fields, by the way-sides, and springing up freely amidst rubbish-heaps and on any patch of waste ground. It flowers throughout the whole summer and late into the

autumn months. The plant is an annual, very spreading and branching in its growth, and attaining ordinarily to about a foot in height, though, like most way-side plants, it varies a good deal in this respect, according to the poorness of the soil, the absence of moisture, and several other conditions that are powerful either to aid or mar its development. The leaves are pinnate, or feather-like in character, and many of the segments have smaller lateral segments given off from them; a form known botanically as bi-pinnate, or twice pinnate. All the divisions of the leaf are very narrow in proportion to their length, and cross and recross in such appearance of inextricable confusion, that it is only by isolating a few from the mass of foliage that the plant bears that their true form can be satisfactorily identified. The leaves spring directly from the main stems; there is no intervening leaf-stalk. The flower-heads are larger than in many of the plants of which we have spoken as bearing some little resemblance to the present species, and are borne singly at the ends of long terminal flower-stems, or peduncles. The central part, composed of the florets of the disk, is a deep yellow in colour, hemispherical in form, and very prominent. The outer florets have very conspicuous white rays, these being much larger in proportion to the disk than in most of the allied species, and lack somewhat of the firmness of appearance that is seen in the corresponding part in the feverfew, for example, where the rays are much broader as compared with their length, and stand around the disk with an appearance of vigour that the present species appears somewhat to want. A rather marked variety of the plant is sometimes found by the sea-shore, and especially in the north; in this the leaves are somewhat broader and fleshy, and succulent in appearance,

and the flower-heads smaller. From the locality in which it is found it is either considered as *Matricaria inodora*, var. *maritima*, or by other botanists, who raise it to the rank of an independent species, it is called *Matricaria maritima*.

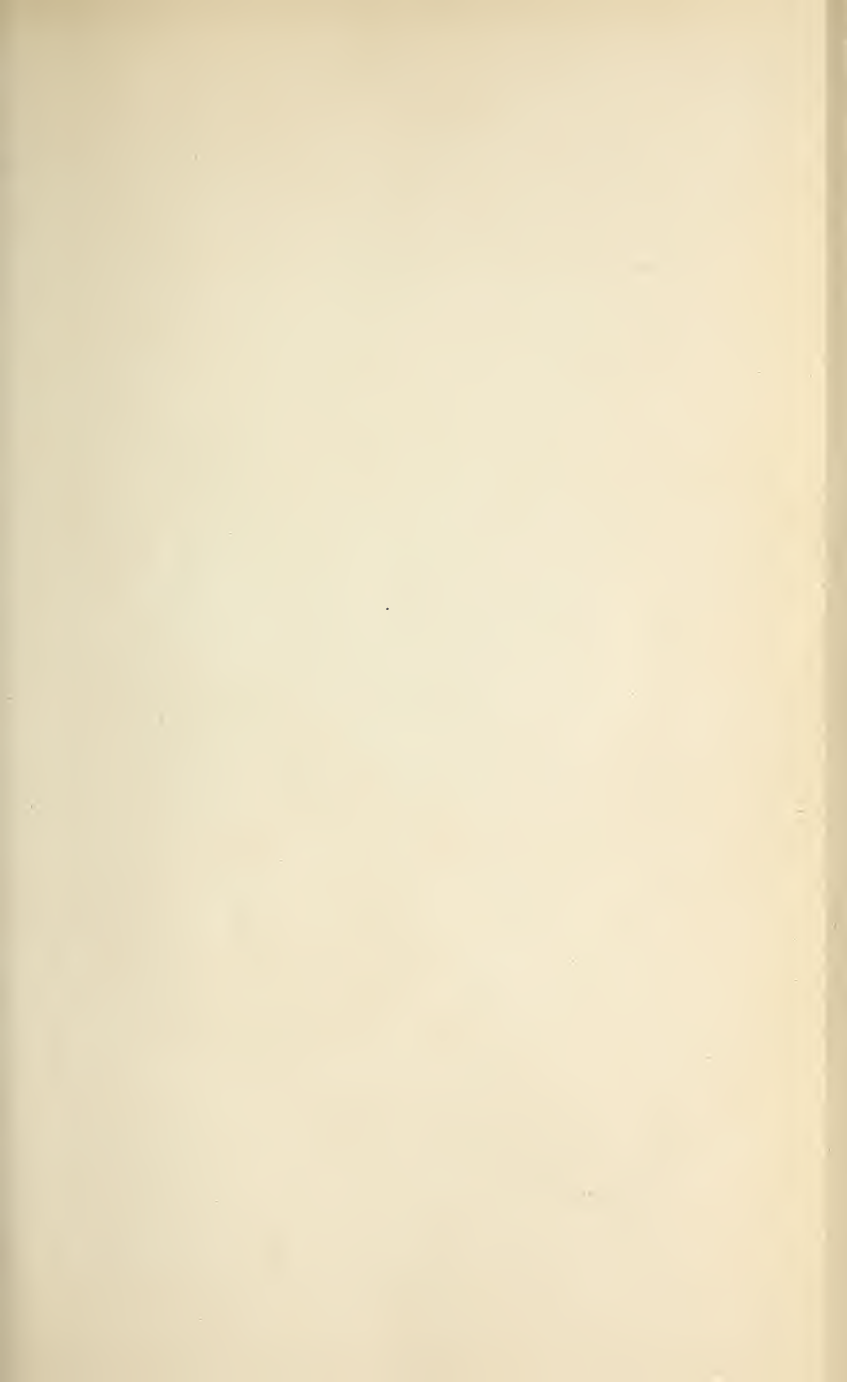
The scentless mayweed owes its generic name, *Matricaria*, to its reputed medicinal properties, while the specific name, *inodora*, signifies scentless. Though, compared with several of its allies, it may almost be termed scentless, the term is not strictly appropriate, as a slightly aromatic odour is yielded, while the name mayweed is equally inaccurate if really criticised. It appears to us at least somewhat of a misnomer to call a plant that yields some little aroma, and that may be met with in flower throughout the whole of the summer and autumn, the scentless mayweed. The plant is by some botanists called the *Chrysanthemum inodorum*, by others the *Pyrethrum inodorum*, names that in themselves sufficiently indicate the slight points of difference between this and some few other species, and that lead botanists therefore to place it sometimes in one genus, sometimes in another.

The medicinal properties of the present plant seem to be of a very slight character. An allied species, the *Matricaria Parthenium*, possesses a certain bitter and tonic principle that has been at times pressed into the service of the healing art, while its common English name, the feverfew, points to the old belief in its efficacy; the significance being that fever patients need be but few in number were the virtues of this plant sufficiently appreciated and utilised. The little crimson-tipped daisy and the ox-eye are very near relations, as the general appearance of the plants would lead one readily to suppose, and the milfoil,

or-yarrow, is another close connection, as the form of its flower-heads equally clearly testifies.

One of the plants that most strongly resembles this may be readily distinguished by its odour, which is so strong as to have procured the plant the name of the stinking mayweed. It is botanically the *Anthemis Cotula*; it flowers as freely and as long and in the same localities as the scentless mayweed. The true camomile, or *Anthemis nobilis*, is another very similar-looking herb. Its intensely bitter taste and highly aromatic odour will amply suffice to identify it. It is a plant still held in medicinal repute; it may often be found in dry, gravelly pastures, and on heaths and other open waste spaces in England; it is less common in Ireland and Scotland.







WOOD SAGE.



WOOD-SAGE.

Teucrium scorodonia. Nat. Ord.,
Labiatæ.

WOOD-SAGE, or as it is often termed, the sage-leaved germander, delights in woody and hilly situations where the soil is dry and stony, and in such places it may very commonly be found throughout Great Britain and Ireland. It may frequently be met with, too, on stony hedge-banks that face towards the sun, and which often from the poorness of the soil supply little else of botanical interest. We are very familiar with the plant, and we may recall two typical situations

in which we found it. One of these was near a quarry in the north, the rocky hillside broken into picturesque masses by the blasting operations, and all the undisturbed portions bearing a rich growth of oak and fir. With the exception of a little fern, the whole ground wherever a plant could fasten was thickly covered with the wood-sage, the greyish-green of the leaves giving a

peculiar bloom to the hillside, and contrasting finely with the rich colour of the rock and the brilliant tint of the oak foliage, as the sun shone through the leaves and turned them emerald. The second locality was within a short omnibus ride of the metropolis, a lane that we had known in its more picturesque days, and which probably now has been overwhelmed by the great onward march of the men of bricks and mortar. The sides of this lane were high and steep, the soil was poor and dry, and these banks abundantly bore the plant we have figured. The wood-sage is common enough almost everywhere, and we can only imagine that these two localities are more especially engraven on our memory because it was from these undoubtedly that our less pleasant memories of the wood-sage are derived. A decoction of the plant is held to be very tonic in its effects, and if the popular theory that a medicine must be good because it is nasty has any truth in it, the virtues of wood-sage must be considerable. The plant is, undoubtedly, an exceedingly bitter one, and some amateur doctors fall into the error of thinking that because some undoubted remedies are very bitter that therefore any bitter is in turn a remedy. At the same time it is only fair to say that, in the rustic pharmacopœia, the plant holds an honoured place which it would scarcely retain if it did not possess some value ; and it belongs to an order that is rich in plants of economic and medicinal service—sage, peppermint, marjoram, horehound—some of them, as the self-heal and the wound-wort, testifying in their very names to the esteem in which they were held. It has been suggested that this bitter principle would make it an excellent substitute for hops in brewing, and those who have tried it affirm that the beer clears sooner than when

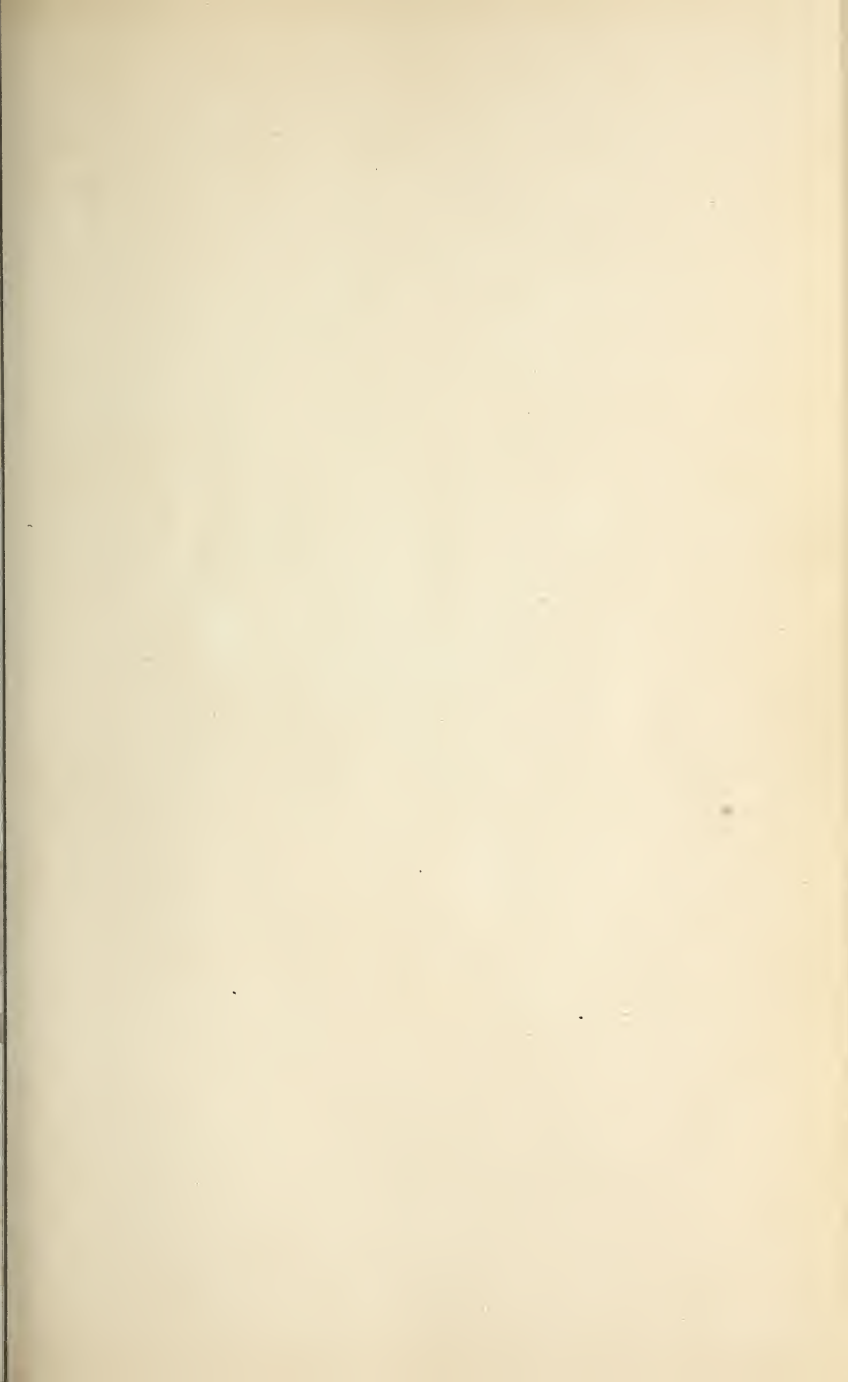
the more familiar hops are employed. Beer-drinkers who cannot get the pure admixture of malt and hops would at least prefer wood-sage to *Coculus Indicus*, cardamom, liquorice, grains of paradise, quassia chips, and the various other sophistications that, unless rumour and analysis sadly err, are not unknown in certain unscrupulous sections of "the trade."

Botanically, the plant is the *Teucrium scorodonia*. Its generic name was bestowed by Linnæus, from a belief that it is identical with the plant that Dioscorides says was first used medicinally by an ancient King of Troy named Teucer. We cannot affirm that this is not so; but as Dioscorides was a Greek flourishing in the reign of Nero, it is open to us to believe that this was one of his flourishes, or at least, if our view of the subject be held too flippant, that the point is open to some little question. The specific name *scorodonia* is derived from the Greek word for garlic, and does not appear to be particularly appropriate.

The root-stock of the wood-sage is perennial and woody, creeping some distance underground and throwing up branches at intervals. The stems are upright, numerous, and ascend to a height of some two feet, though many specimens do not exceed a foot in height. They are quadrangular in section, and purplish-red in colour. The leaves are opposite to each other, and very much wrinkled in texture, like those of the sages; hence, therefore, its familiar names, wood-sage or sage-leaved germander. These leaves are on footstalks, and in form are of a somewhat oblong heart-shape, and their edges are coarsely toothed. Both sides of the leaf are green, but more or less covered with grey downy hairs, and the veining is very conspicuous on each surface. The flowers are a pale

yellow or straw-colour, sometimes a light greenish-yellow; they grow in pairs, all facing one way, and form lateral and terminal one-sided racemes. As the leaves grow in pairs and the lateral flowering stems spring from their axils, these also are in pairs. The terminal flowering stem is about as long again ordinarily as those that spring laterally below it. Each individual has, at the point where it springs from the general stem, a floral-leaf or bract, small and simple in character. The calyx is tubular, bulging or gibbous at the base; the upper tooth being large and conspicuous, and the four lower ones much smaller. The corolla is monopetalous and widely opened, its slender tube being about as long again as the calyx. The four stamens have yellow anthers, and very noticeable purple and hairy filaments. The plant flowers in July, August, and September.







CREEPING THISTLE.

THE CREEPING THISTLE.

Cnicus arvensis. Nat. Ord., *Compositæ*.

EW of our readers who have not had occasion to look into the matter would imagine our native thistles to be so numerous a body as they are, there being a strong family likeness amongst them, though many of the species may readily be distinguished. We have already figured the marsh thistle, the spear-plume, and one or two others, and the present species is an equally common one. As thistles increase not only by means of their flying seeds, but also by the aid of their creeping roots, they are one of the pests of the agriculturist, and farmers

cannot too distinctly have their attention called to their pernicious effects, and to the nature of their growth. No species of thistle should be allowed by the farmer to ripen its seeds; all should be rigorously cut down before these are ready for dispersion, though the mere cutting down of the plant seems of little value, as it,

if anything, appears to stimulate the underground stem to fresh endeavours. In pulling this thistle up we may succeed in drawing out, after a good pull, a long and slender root, and may duly congratulate ourselves; but on a closer examination we shall find that it has broken off, after all, in the ground, and our labour is therefore vain, for the root goes down a great depth, and then branches horizontally in the ground. Any part that is left in the soil retains its vitality, and we soon find the plant reappearing above ground. Curtis, in his "*Flora Londinensis*," records an experiment illustrating this so well that we are glad to reproduce it, especially as our old author is but rarely met with:—"On April 1st, 1778, I planted in a garden a piece of the root of this thistle, about the size of a goose-quill, and two inches long, with a small head of leaves cut off from the main root just as it was springing out of the ground; by the 2nd of the November following this small root had thrown out shoots, several of which had extended themselves to the distance of eight feet, some had even thrown up leaves five feet from the original root; most of the shoots which had thus far extended themselves were about six inches underground, others had penetrated to the depth of two feet and a half; the whole together when dug up and washed from the earth weighed four pounds. In the spring of 1779, contrary to my expectation, this thistle again made its appearance on and about the place where the small piece was originally planted. There were between fifty and sixty young heads, which must have sprung from the roots which had eluded the gardener's search, though he was particularly careful in extracting them." The creeping thistle is known in Wales as the *Ysgallen gyffredin yr ar*, and Curtis calls it the cursed

thistle. Well may an old writer break out into the exclamation, "Thistles are a large generation," and we cannot but echo his words, as we find yet another species cropping up in our series.

"Thistles are a large Generation, distinguished by different prenomens and manner of Vegetation, or growth and figure. A sow thistle is called *Sonchus*; the white Cotton Thistle is *Acanthium*; the soft Thistle *Cirsium*; the Globe Thistle is *Carduus Globosus*; the Fuller's Thistle, or Cloathier's Thistle, or Teazle, is called *Carduus Fullonum*; Star Thistle is *Carduus Stellatus*; the Chameleon Thistle; these are the chief, which have many related to them, being of little use as yet, especially in physick, because the chiefest sorts mentioned in our Dispensatories, and that I shall chiefly insist on, are three, as followeth:—Carline Thistle, called *Carlia* or *Carolina*, by Charlemain the first Emperor, whose Army was by this Root delivered and preserved from the plague. I forgot to mention before the remarkable Thistle called Marsh Thistle, which grows as tall as a Man." The foregoing quotation is from the "*Historia Vegetabilium Sacra*," or Scripture Herbal, of William Westmacott, "of the Brough of Newcastle-under-Line, in the County of Stafford, physician." The book was published in 1694, "at the King's Arms, next St. Dunstan's Church, in Fleet Street," within a quarter of a mile of the spot whence the present volume issues. Thistles find a place in this book from their association with thorns in the curse pronounced on the ground after the Fall in Eden.

The creeping thistle is very abundant by road-sides. Parkinson calls it the *Carduus vulgatissimus viarum*, while Ray terms it the common way-thistle. Another favourite

locality for it is in corn-fields, and we remember to have seen a piece of ground that was ostensibly a corn-field so thickly covered with this thistle that the real crop sank into the second place, not a square yard anywhere all over the field being without its one or more—and generally more—thistle plants. Such husbandry, or rather lack of husbandry, as this is a curse to the whole country-side. The flowers of the creeping thistle are rather a pale purple colour, and have the rich musky fragrance of most of the race. Like all the other species, the flower-heads often vary from purple to pure white, a point that our readers should note, or they may imagine that they have discovered a new species, and be proportionally elated or bothered, when it may very possibly be only one of the very common white-flowering variations from the ordinary types. The larva or caterpillar of the beautiful painted lady butterfly, the *Cynthia cardui* of the entomologist, feeds on this and various other species of thistle.







WATER RAGWORT

THE WATER-RAG- WORT.

Senecio aquaticus. Nat. Ord., *Compositæ*.

HEREVER, throughout Britain, we find a low-lying and marshy piece of meadow land, there almost certainly we shall find the brilliant yellow flowers of the water-ragwort, the plant here represented, starring it over in rich profusion. It may also be

commonly met with by the edges of ditches and streams; and when seen at all is generally abundant, hundreds of plants being often found in one small river-side pasture or other likely spot. It is not, therefore, a plant that requires much searching for; not only the size of the plants but also their number in any suitable locality, will prevent their being readily overlooked. It is found in flower throughout the whole summer.

The plant is the *Senecio aquaticus* of botanical science. The generic name is derived from the Latin *senex*, an old man, from the hoary look that the early ripening



of the grey seed-down gives to the plant. The name, a somewhat forced and fanciful one, was bestowed on the genus by the great Linnæus. The idea seems to have struck him as a good one, for a closely allied genus in the same sub-tribe of this great natural order was by him called *Erigeron*, a name bestowed on the plants of that genus for the same reason that guided the choice of the generic name of the water-ragwort, *Erigeron* being derived from two Greek words signifying "early," and "an old man." The specific name *aquaticus*, of the ragwort now under consideration, and its English name water-ragwort, both point clearly to its liking for the neighbourhood of water; the plant, however, is not really an aquatic plant in the sense that the water-lily or the flowering-rush are, as it is always found on the banks, though these could perhaps not always be literally termed *terra firma*. The English name ragwort refers to the somewhat torn and ragged look of the deeply-cut foliage, wort being an old English word for plant. We meet with it again in the swallow-wort, saw-wort, soap-wort, glass-wort, roth-wort, cross-wort, dane-wort, cole-wort, awl-wort, butter-wort, may-wort, milk-wort, and many other old plant names.

Several of the species of *Senecio* are very similar in appearance, and this is one of them. The present plant, the narrow-leaved ragwort (or *S. erucæfolius*), and the ragwort proper, (or *S. Jacobæa*), may often be mistaken for each other, for though the type-forms are sufficiently distinct to amply justify their discrimination as separate species, the forms often run into variations that render their identification at times difficult. The botanical test in such a case is the form of the fruit, a point which, in a book like the present, it is needless for us to discuss

in such detail as would make our remarks of any real service.

The general features noticeable in the water-ragwort are as follows:—Foliage alternate in arrangement on the stem, dark green, deeply cut; the stem ordinarily about two feet high—one help towards its identification, for in the *S. Jacobæa* the stems are often three feet high; the lower portions of the stems are often very pure and brilliant pink, or even crimson. It also branches and spreads more than in the other species named; the individual flowers are larger also, and the growth of the corymb, as the form of inflorescence is termed, is looser and more irregular. Strictly speaking, each so-called flower of popular parlance is an aggregation of a great number of florets into what should more properly be termed a flower-head; and the same remark applies to what is familiarly called a dandelion or a daisy-flower; it is in each case a mass of small blossoms gathered into one whole. The corymbose inflorescence is the form produced when the stems bearing the lower flowers are much longer than those nearer the summit, so that, roughly speaking, the flowers all come to one level. The water-ragwort is a perennial.

The genus *Senecio*, to which this plant belongs, is the largest of the numerous genera into which the great composite family is divided. Eleven species of *Senecio* are found in Britain, some, like the groundsel (*S. vulgaris*), and the present plant, are abundantly met with, while of the others some are rare and very local in their range. All the British species have yellow flowers. The various kinds of garden cinerarias, as the florists call them, all belong, too, to this same genus: the lowly groundsel, that springs up everywhere in the garden, and the greenhouse plant so

zealously preserved from harm, are brethren. The ragwort is by the older herbalists known also as the St. James's-wort, stagger-wort, and stammer-wort. St. James's day is the 25th of July, and as that is about the date when the ragwort is fairly in blossom, that will probably, as in the case of several other plants bearing saints' names, give the point to the title. It is clear that stagger-wort and stammer-wort are both testimonials to its supposed medical efficacy. The plant was in the Middle Ages held to be "singular good to heal green wounds, as also inward wounds." Cancer, sciatica, and many other grievous ills, were supposed to yield to its potency, but its good qualities, if it possesses any, are now altogether disregarded, for no use is made of the plant in any form.









TANSY



TANSY.

Tanacetum vulgare. Nat. Ord., *Compositæ*.

ALL our readers will probably at once recognise the subject of our present illustration, for the tansy is one of our most generally distributed plants, being met with all over the country. It will be found springing up on the broad strip of waste land that so often borders our country roads, or it may often be seen at the edges of fields. The height of the tansy, varying from eighteen inches to a yard, tends to make it conspicuous, and the bright golden flower-heads that crown the plant at once attract the eye. The flowers are almost at the summit, not running down the sides of the stem,

and they should be looked for at the end of July, during August, and in the beginning of September. It is one of the attractive flowers of the waste lands.

Our present name tansy and the French *tanaisie* are both corruptions of the mediæval Latin name *Athanasia*, which was itself derived from the Greek words *a*, not, and *thanatos*, death, *i.e.* immortality. This plant was held in

such esteem by the monks and mediæval herbalists that when they came across the passage in Lucian where Jupiter, speaking to Mercury of Ganymede, says, "Take him hence, and when he has tasted immortality let him return to us," they at once concluded that the tansy was the plant intended, and it became the *Athanasia*. Unfortunately, however, with all these old names, one has no sooner fairly accepted a definition than another at once springs up to upset it, and other writers, as Gerarde and Parkinson, tell us that the tansy is so called "because the yellow floures gathered in due time dye not of a long time after."

The tansy was largely employed in the mediæval herb garden, both as a medicine and for culinary purposes; and we have heard, though we have never really brought the matter to the test of practical experience, that any meat rubbed over with it during the warm weather is safe from the attacks of the flies, the essential oil which it contains giving it a strong odour, which we presume is objectionable to these small plagues of the housekeeper. Cooking probably removes this, or the meat might be considered equally objectionable when brought to table. Boerhaave declares that "this balsamic plant may well supply the place of nutmegs and cinnamon, for I believe that Asia does not supply a plant of greater fragrance than the tansy." Its leaves are even now, by some old-fashioned cooks, used in omelettes, and it used formerly to be much eaten with other foods during Lent as a representative bitter herb. Culpepper, writing in 1652, waxes indignant on this quasi-religious use of the plant. "Now, forsooth, tansies must be eaten only on Palm and Easter Sundays and their neighbour days," and he foresees "that want of commonly

eating this herb in spring makes people sickly in summer, and that makes need for the physician." As he was not what we should now call a regular practitioner, but was, on the contrary, at most evident feud with the medical profession, he insinuates that none were more glad than the physicians when the Church ordered the tansy to be eaten only on certain days.

The way old Culpepper describes, or rather fails to describe, many of the common plants is very original, and possesses many evident advantages to the author. Thus of the present plant he says, "Tansy is so well known that it needeth no description." His guidance, too, on the subject of stinging nettles is very quaint—"They are so well known that they need no description: they may be found by feeling in the darkest night." Woodbine, again, is "a plant so common that every one that hath eyes knows it, and he that hath none cannot read a description if I should write it." Of rye, too, we read: "This is so well known in all the counties of this land, and especially to country people, who feed much upon it, that if I did describe it they would presently say I might have spared that labour." There is a slight dash of impertinence towards his readers in this way of treating the subject; but what a saving of time and space is effected! Written in this style, our "Familiar Wild Flowers" might indeed have been pocket volumes, for a sheet of note-paper would have held all the necessary manuscript for the printer. We could then begin and conclude our present article something in this style:—"Any man who can walk has seen the tansy, and a lame man could not even if he would; so no more of tansy."

The tansy is a perennial. Its root is somewhat large

and creeping, "casting itself here and there." The leaves are deep cut into numerous parallel segments, "infinitely iagged and nicked and curled withall like vnto a plume of feathers," as Gerarde describes them, or "made up of many small leaves set directly one against another, and spreade abroade like wings, the which be also iagged and snipte like small feathers," to quote Dodoens. The flower-heads are numerous and semi-globular, "yellow floures like small round buttons or like the middle of the floure of Cammomill, but greater and of stronger savour." These being gathered in their prime, will hold the fresh colour a long season.







WOOD-VETCH.



THE WOOD-VETCH.

Vicia sylvatica. Nat. Ord.,
Leguminosæ.

ANY of our readers who have taken such an interest in plants as to care to collect them, or at least to observe them, will no doubt have readily detected that certain plants are always found under certain conditions, and that beyond the pale imposed by these conditions, all search is fruitless and disappointing. A plant may therefore be either very rare or very common—very common if searched for in the right place, and at the proper season; very rare if searched for amidst uncongenial surroundings. The common and the open moor-

land, the stream, the sea-beach, the woodland glade, have each their appropriate flora, and it is only by visiting all these that one gets a fair idea of the rich variety of our wild plants. The heaths, the golden broom, and prickly furze, are all in an especial degree plants of

the open waste. The flowering rush, the arrowhead, the white and yellow water-lilies, are the treasures of the stream; the bleak sea-beach has no less its special plants—the purple sea-lavender, the crimson thrift, the golden blossoms and long waving pods of the horned poppy, the quaint foliage of the sea-holly. In like manner our woods and forests have their characteristic blossoms—the golden daffodils, the purple hyacinths, and many others: the wood-vetch, the plant represented, is one of these.

Though in some places common enough, it is one of our more local plants, as it has nothing like the universal range of many of our flowers. It is more especially a northern plant, and seems to delight particularly in open woods on the mountain-sides. It is not at all an uncommon plant in Scotland and the northern counties of England, and it also occurs from time to time in hilly and woodland districts in many other parts of England. The specimen from which our illustration was copied was found in a wood in Wiltshire, where it may be met with in abundance, and it has even been found in a locality so far removed from the district of its especial choice as Kent. Wherever found, it is always, however, what—if we may borrow a term from our railway engineers—we may call a “high-level” plant.

The wood-vetch is a very striking and handsome-looking plant when found under favourable conditions. It frequently attains to a height of some five or six feet, or even more, its long stems trailing over the bushes and undergrowth, climbing and supporting themselves by means of the long and branching tendrils with which they are abundantly furnished. The form of the leaf is similar to that of the tufted vetch (*Vicia cracca*) and other equally

commonly distributed species of the genus, but it is larger in size. It is composed of a great number of leaflets, ranged in two rows up the stem; eight or ten pairs of these leaflets would be about the average number in each leaf. The leaf does not terminate in a leaflet, as in the ash, the elder, and many other leaves of this type, but the central stem is elongated to some distance beyond the last pair of leaflets into a thin tendril that often has lateral tendril-forms given off from it. These tendrils are very strong, and give the plant a great power of grasping and holding on to any convenient point of support, a very needful feature in the economy of the plant, as it is itself quite destitute of the strength that would enable it to stand alone, and make its own way in the world. The leaves have at their bases broad stipules deeply toothed, and altogether very different in form from the members composing the true leaf. The flowers are large and very numerous, pure white, and freely streaked with purplish-blue veins. The stems or peduncles that bear these are of considerable size, ordinarily longer than the leaves; the flowers spring from these in a long line of beautiful forms, and as they are not so densely crowded on the flower-stem as in some of the other species, the grace of the form and the delicacy of the colouring are easily perceived and duly appreciated. The inflorescence is racemose—that is to say, each flower is borne on a small stem of its own that springs from the common flowering stem. It is a very common form of inflorescence, and may be readily seen in the hyacinth, the mignonette, and many other well-known flowers. The pods succeeding the blossoms are about an inch long, and rather broad in proportion to their length, as compared with those of many other species of the great pea-flower family.

The scientific name of the wood-vetch is *Vicia sylvatica*. The generic name is open to a certain amount of doubt, though possibly it may be derived from the Celtic word *gwig*, from whence spring in turn the German *wichen*, and the English word vetch. The specific name is sufficiently indicative of the sylvan shades in which the plant delights to need no lengthy explanation. The wood-vetch is a perennial. It may be met with in flower by about the middle of June, and lasts in flower from that time until well into August.





SCWTHISTLE.



THE SOW-THISTLE.

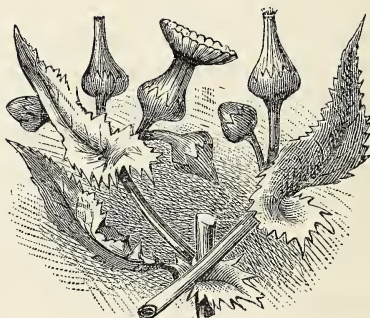
Sonchus oleraceus. Nat. Ord., *Compositæ*.

WE have already figured one plant of this genus, the corn sow-thistle; the present species is still more abundant, for while the former plant is fairly common throughout Britain in our corn-fields, the present species, the common sow-thistle, is abundant everywhere. Like the corn sow-thistle, it is a weed of cultivation; but it does not confine itself to one crop, but springs up freely wherever a piece of land is under culture of any kind. The plant is almost universally distributed, north, south, east, and west, over

the wide world, except in some few tropical localities. Wherever we go we find this pertinacious weed, springing amidst the crops, availing itself of the tillage of man, and filling his fields with its unwelcome seedlings. The meaning of the name we have already given in our remarks on the corn sow-thistle. We may, however, just remark that it is in France *le Laiteron*, a name bestowed on it from the milky juice with which its stems are filled.

ladies of the period as a wash for the face, as it was held to give great clearness of complexion. At present, we need scarcely remind our younger readers, its chief use is as food for rabbits: there is no green food they will welcome more eagerly.

The marsh sow-thistle, or *S. palustris*, with its large yellow flowers and height of some seven or eight feet, is a very striking plant, but it is too rare to come within the scope of our remarks.





LEOPARD'S BANE



LEOPARD'S-BANE.

Doronicum Pardalianches. Nat. Ord.,
Compositæ.

LIKE the ivy-leaved toadflax and many other species that could be named, the present plant is not a true native of England, but it has so far thriven in its new home as to have thoroughly established itself a place in our flora. The leopard's-bane is a plant of the forests and mountain pastures of central Europe, but it has long been cultivated as an adornment of the cottage garden, and as a valuable medicinal plant in the herb garden of the mediæval herbalists. From thence it has spread as an outcast or by means of its seeds, and may now be met with sparingly in many districts in England and the south of Scotland, growing often in wild and craggy spots, where there can be no doubt of its wild and self-sown nature.

The leopard's-bane may claim, too, a certain literary interest, as its occurrence in the gardens of the curious and the herb plots of the faculty made it sufficiently well-known to cause

allusions to it in our older writers. The only instance we shall here quote is a still more interesting one, as it may be taken as an indication of the early assertion of the plant to a place in our native flora. Jonson, in his "Masque of Queenes," says :—

"I have been plucking (plants among)
Hemlock, henbane, adder's tongue,
Nightshade, moonwort, libbard's-bane."

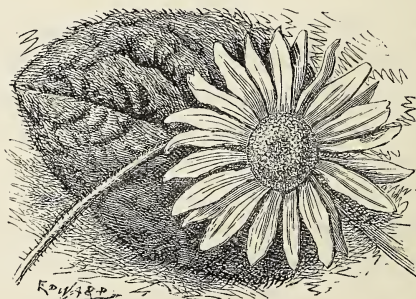
Hemlock, henbane, and nightshade are all dangerous poisons, and so, too, is the leopard's-bane. Adder's-tongue sounds as though it should be formidable, though the little fern that bears that name is so called from the shape of the spike of fructification, and not from any deadly quality ; while moonwort, another graceful little fern, is as harmless as the last, though its name may be suggestive of deeds of darkness. What we, however, here want to enforce is that the leopard's-bane comes naturally into association with five other plants, all of which are most undoubtedly found freely growing wild. Jonson's spelling of the name is in accordance with the usage of the time, and many of our readers will no doubt recall the "libbard" in Shakespeare's works and elsewhere.

The root-stock of the leopard's-bane is large and somewhat creeping, and it was this part of the plant that was more especially valued in medicine, though it was a very dangerous thing to deal with, and the speedy death of the patient was the result of incautious use. There is great reason to believe that Conrad Gesner, the *monstrum eruditionis*, as Boerhaave called him, prematurely closed his career in experimenting with this plant. The lower leaves of the leopard's-bane are large, rough in texture, and heart-shaped, each being borne on a long stem. We

have represented one of these leaves in our illustration behind the flower. Had we had room to represent the whole of the leaf-stalk and its attachment to the stem, it would have been seen that it embraced it by a broad dilation at its base. The upper leaves, as our figure also shows, are simple in character, small, and without stalks, the bases of them partially embracing the stems. The main stems are between two and three feet high, very slightly clothed with leaves, erect in general direction, and very slightly branching, if at all. The flower-heads are large and attractive-looking, conspicuous both from their size and their brilliant colour. The rays that surround the central disk are numerous and rather long in proportion to their breadth when compared with the corresponding part in many other composite flower-heads. The plant is a perennial, and its blossoms should be looked for in May, June, and July. The general effect of the plant is that of a large mass of rich green leaves near the ground, and some few rather weak-looking stems bearing the flower-heads rising from their midst. We can well remember the impression its brilliant foliage and blossoms caused when we first saw the plant.

The generic name is open to considerable question. Some would tell us that it is compounded of two Greek words signifying *gift* and *victory*, because it gave men the power of destroying wild beasts; while others say that it is a corruption of the Arabic name, *doronigi*, of the plant. The name was bestowed on the genus by Linnæus. The Eastern nations introduced many valuable medicinal plants into Europe, and the writings of the Arab physicians were held in high repute, so that the Arabic origin of the name is not really so far-fetched as may at first sight

appear. The specific name is derived from two Greek words, signifying leopard and to destroy, as the juice of the plant was formerly used, when mixed with raw flesh, to poison wild beasts. We see the same principle in the naming of a plant having very poisonous berries which are used to destroy in the same way hyænas and other wild creatures: the plant is the *Hyænanche globosa*. The English name carries out the same idea, though fortunately for us we have imported the plant and its name, while the carnivorous plagues on which it might have been exercised are left behind. The name is similar in character to wolf's-bane, flea-bane, and several others. Dodonæus calls it panther-bane, and says that "it is very hurtful to man's nature, and killeth out of hand. The report goeth that if this herbe or the roote thereof be layd by the scorpion that he shall lose his force and be astonied, until such time as he shall happen agayne to touche the leaves of white elebor, by vertue whereof he commeth to him selfe agayne." In a foot-note he gives an amusing woodcut of two scorpions "astonied," and falling different ways.





HERB-ROBERT.



THE HERB-ROBERT.

Geranium Robertianum. Nat. Ord.,
Geraniaceæ.

HERB-ROBERT (*Geranium Robertianum*) is perhaps the commonest and, at the same time, the most graceful plant of a genus that contains several species, many of which are common, and almost all of them attractive, both in form and colour.

The meaning of the name is quite lost; various guesses have been made as to who this Robert was, and why the herb should have been thus dedicated to him, but all attempts to arrive

at a satisfactory conclusion are vain. Some suppose that it is so called from St. Robert, a Benedictine abbot to whom the twenty-ninth of April is dedicated, as the Herb-Robert is then about coming into flower. Careful observations on the flowering of our various plants have been made for over nine years by a local natural history society of which we are one of the members, and we find from the records kept that the earliest date at which the plant has been found in flower is the 27th of April; the latest, May the 4th; the average

ground that the spreading nature of the plant enables it to cover. The leaves are thrown off from the stem in pairs, and are divided into three or five deeply incised segments. The flowers, though rather small, are sufficiently bright in colour to attract the eye; generally a shade of pink, they may at times be met with of a pure white. The flowers always grow, as may be noticed in our illustration, in pairs, hence the plant is sometimes called by country folk, knife and fork. The stems of the Herb-Robert, like those of the stitchwort, and some other common plants, are rather brittle, swelling at the joints, and readily snapping at those points. The whole plant has a very strong and somewhat disagreeable smell, noticeable at any time, but especially on bruising the leaves or snapping the stems apart. A small variety, sufficiently distinct in character to have led some writers to class it as a species, is not uncommonly found by the sea-shore. It has been described as the *Geranium purpureum*, or *G. Raii*, but its claims to rank as an independent species are scarcely sufficient to justify this complete separation from the *G. Robertianum*.





WOODY NIGHTSHADE.



THE WOODY NIGHTSHADE.

Solanum Dulcamara. Nat. Ord.,
Solanaceæ.

THE woody nightshade, though by no means so conspicuous nor so attractive as many of the plants that meet the eye in a country ramble, is too common a denizen of our hedgerows to be omitted from our series, and it will, we think, in addition, be found to be not without a certain beauty of its own in the quaint form of its flowers and foliage, in the rich contrasts of colour in the parts of the blossom, and the variety of tint observable in its bunches of fruit.

The woody nightshade is a shrub throwing out long branches that climb and straggle for a considerable distance over the hedgerows, in which the plant is almost always found. It is never met with standing alone, but when in some tangled thicket or old hedge it can find the needful support to its weak stems, they run for many feet over and among the other plants. The leaves are all borne on stems; the form of the foliage is subject to a very con-

siderable amount of variation. In the lower leaves the form is boldly heart-shaped, in the upper the leaves are more attenuated, more lanceolate in form, and having at their base two wing-like segments, making a form that is known botanically as hastate, from a certain resemblance that it is supposed to bear to the head of a spear (Latin *hasta*). In some leaves a second pair of these lateral lobes occurs beneath the larger pair. The general form of the leaf when thus furnished with these lateral members is very pleasing. The colour of the foliage is somewhat dark and sombre in effect when seen in a mass. The flowers are small; the corolla is composed of five segments, of a dull purple colour, and very acute in shape, producing a very effective star-like form. Each segment of the corolla has two green spots at its base, a feature that is scarcely noticeable on a cursory inspection, but which on a closer investigation may be readily observed, and which gives the effect of a slight ring of green when viewing the corolla as a whole. The corolla is reflexed, that is to say, instead of making a cup, as in the buttercup, or a flat plate or disc, as in the borage or pimpernel, the parts are thrown so far backward as to appear almost as though drooping. The centre of the flower is filled with a mass of conspicuous yellow forms, composed of the almost sessile anthers which close together into a cone-like form round the central organ or style. Exactly the same form of growth may be seen in the potato, an allied species, and as all the parts in the potato flower are considerably larger than in the woody nightshade the structure and relationship of the parts may be more readily detected by the inexperienced in floral dissection. The flowers grow in bunches, which are generally, but by no means so constantly as is the case in most

plants, given off from the same points as the leaves. As the flower-stalks spring from the opposite side of the stem to the leaves, and the flower heads grow in a drooping direction while the leaves turn to the light, it is very difficult to get a fair view of both at once. If the spray be turned so that the leaves show to advantage the bunch of flowers is altogether in the background; if the flowers be turned towards the spectator, he sees those admirably, but it is with a background of nothing but the back or under surfaces of the leaves. Any one attempting to sketch a piece of the plant, and to do full justice both to foliage and blossom, will at once find how inconvenient a feature this mode of growth of the plant is. The flowers are to be met with occasionally pure white, but it can be a by no means common variation from the typical colour—we, at least, with an acquaintance of considerably over a quarter of a century with the plant, never came across any variation whatever from the normal purple. The variation is, however, noted by several authorities. The woody nightshade blossoms from about the first week in June to the middle of September. The berries that succeed the blossoms are at first green, then turn yellow, afterwards orange, and ultimately crimson, and as berries in all these degrees of development may often be found on the same bunch the effect is very pleasing, and the general appearance of the shrub when in fruit is certainly richer and more attractive than it is when the blossoms are the chief feature. Like most plants, however, that have a long duration of flowering, both blossom and fruit may often be found simultaneously, the earlier blossoms having faded away and developed their fruit while the later flowers are still coming forward. The blackberry is another notable example of this.

The woody nightshade is the *Solanum Dulcamara* of the botanist. The generic name is derived from the Latin word *solamen*, solace or consolation, and refers to the comfort and relief that the properties of some other species of the genus afford from their narcotic properties. The specific name is equivalent in meaning to one of the plant's names, the bittersweet, and it is also in some old herbals called the *Amaradulcis*, because the stems when first tasted appear bitter, a sensation soon followed by a considerable degree of sweetness.

The only other English species is the common, or black, nightshade (*S. nigrum*), so called because its fruit when ripe is jet black. Its blossoms, of similar form to those of the woody nightshade, are pure white. It is very commonly to be met with in fields and on waste ground. It is the petty morel of the older herbalists, the deadly nightshade, a plant of another genus, being the great morel.





CORN-COCKLE.



THE CORN-COCKLE.

Agrostemma Githago. Nat. Ord.,
Caryophyllaceæ.

LIKE the poppy, the corn chrysanthemum, and the beautiful blue blossom that is pre-eminently called the corn-flower, the present species is one of the typical plants of the harvest-field. It is by most writers spoken of as an introduced plant, one that has probably been brought over from Russia, where it is very common, and from whence large quantities of grain have been procured, the theory being that the seeds of this plant might readily be introduced in such cargoes, and distributed over the land when the corn was re-sown in England. It will easily be remembered, however, by many who read these lines that the importation of foreign corn has only been a matter of comparatively recent development. As, moreover, amongst the Anglo-Saxon names of plants we find the *coccel* mentioned, its claim to be a native appears to be proved, if only, and this we cannot certainly say, the Anglo-Saxon plant so named was identical with the

present plant. Whether the cockle, however, be an indigenous plant or one that has been introduced, there is no doubt that it finds its surroundings all that are necessary to its wellbeing, as it is in many places so abundant as to be reckoned one of the farmer's pests. It is the *Agrostemma Githago* of most authorities, though some botanists unite it with the genus that includes the white lychnis and the ragged-robin, and call it the *Lychnis Githago*; and it is certainly very nearly akin to those plants in its general structure. The genus *Agrostemma* was originally founded by Linnæus; the word is Greek in its origin, and signifies "crown of the field," a testimony to the beauty of the plants, all of which, however, with the exception of the present species, have been referred back to the allied genus *Lychnis*, a genus also founded by the great Swedish botanist.

Some of our readers will recall a passage in the Bible where, after Job's solemn protestation of his integrity, he calls even his land to bear record against him if those protestations of uprightness are false, and concludes by saying, "Let thistles grow instead of wheat, and cockle instead of barley." The reading, however, in the margin substitutes the expression "noisome weeds" for the cockle in the body of the text. We are unable to find that cockle is one of the plants of Palestine, though it is very possible that it is; all, therefore, that we seem able to really deduce from the passage is, that at the time our authorised version was made cockle at once suggested itself to the translators as a representative noisome weed in the corn-field.

The corn-cockle is an annual. It is in general effect erect, for it branches but slightly, such branches as there

are being given off at a very slight angle. The plant is ordinarily about two feet high. All the stems and leaves are generally covered with long soft hairs, that are often so numerous as to give a greyish bloom to the parts they so abundantly clothe. The foliage is long and narrow, and somewhat sombre in tint. The conspicuous but not very numerous blossoms are borne on long peduncles which rise from the axils of the leaves. The petals are five in number, purplish-crimson in tint, and have their exterior edge simple in form; not deeply lobed, as in the white campion, an allied species, already represented. On the crimson ground of each petal are two or three lines of black; these lines are interrupted in character, not continuous. The blossoms have no scent. The calyx is long and tubular, hard and leathery in texture, and divided into five very long and prominent segments; these segments project boldly far beyond the general line of the corolla in the expanded blossom. The styles are five in number, and very long, while the stamens are twice five. The corn-cockle will ordinarily be found in flower by about the end of June, and lasts throughout July and August. After flowering, the calyx enlarges to enfold the somewhat bulky capsule, or fruit, that succeeds the blossom. The capsule opens into five parts on the ripening of the seeds contained therein. Many beautiful kindred species are cultivated in gardens.

The family of plants to which the corn-cockle belongs is a very natural one, as all the numerous plants that belong to it have many points in common. All the species have their leaves arranged in pairs; these leaves are what is termed botanically entire—*i.e.*, they are bounded by a simple line, and have no serrations or other form of broken

outline, and they are almost always long and narrow. Where the width increases in proportion to the length the form is still quite simple. There are no stipules. The stems, circular in transverse section, are generally somewhat swollen at the points where the pairs of leaves are thrown off, and the plants snap readily at these points. These features may all be seen in the following plants, members of the same family as the corn-cockle, viz., the stitchwort, figured together with the yellow nettle, on one of our plates; the white campion, the subject of another illustration; and the ragged-robin, represented, together with one of our wild geraniums or crane's-bills, on another plate in this part. Other examples of the family are the soapwort, the bladder-campion, and the mouse-ear chickweed; while amongst cultivated blossoms the sweet-william and the numerous varieties of pinks and carnations are easily accessible for comparison.





HEART'S-EASE OR PANSY.

THE HEART'S-EASE, OR PANSY.

Viola tricolor. Nat. Ord., *Violacæe*.



THE heart's-ease, or pansy, belongs to the same genus as the sweet violet, a plant we have already figured. The present plant is the *Viola tricolor*, the sweet violet the *Viola odorata*. We have, in addition to these two, some half-dozen or so of other species of violet. It is a genus of which the several species are subject to a very considerable amount of variation, more or less marked, in the various parts, and that has, therefore, been the cause of a good deal of difference of opinion, some observers admitting to full specific rank forms that others can only

acknowledge as more or less prominent variations from the true type forms.

The present plant, the heart's-ease, is as variable as any of the other members of the genus; but whatever modifications of form it may present, it may always be readily distinguished from the other violets by the

general form of its foliage, which is much more cut up than in any of the other species, and by the very large foliaceous stipules at the bases of the true leaves. The stem, too, branches much more than we commonly find in the other members of the genus.

Besides the free branching of the stem, it is generally very angular; a section cut across it would not give the circular form that we should find in the stems of so many other plants. The leaves are deeply cut into rounded lobes, the terminal one being considerably the largest. In the other species the foliage is ordinarily very simple in general outline, reniform, or heart-shaped, and having its edge finely toothed. The form of the stipules in the heart's-ease can hardly be clearly described without the use of technical terms that we desire as much as possible to exclude from our present pages; but our readers will readily gather an idea of their nature from our illustration, where they necessarily form a conspicuous feature. The flowers vary a great deal in colour, but are either purple, yellow, or white, and most commonly there is a combination of all these colours in each blossom. The upper petals are generally most showy in colour, and purple in tint, while the lowest and broadest petal is usually a more or less deep tint of yellow; in some cases as pale as what we often hear people call straw-colour, while in other examples it is full and rich. The spur at the back of the flower, produced by an elongation of the base of the lowest petal, is a feature that is in an especial manner a characteristic of our various species of violets, and one possessed by very few other flowers. The flowers of the heart's-ease are in due course succeeded by the little capsules of seeds. In all the other species of

violet the flowers that attract our attention rarely ever set their fruit; this is produced later on in the year, by small and insignificant petal-less flowers, that would very rarely be noticed at all or their import regarded if a cursory glance fell on them. The capsule opens by three valves, and, if cut across before it is quite ripe for opening, makes a very pleasing section, as indeed do many other similar forms. Our readers, furnished with a sharp knife and magnifying glass of small power, would find in such sections much that would interest and delight them.

The heart's-ease is abundantly met with almost throughout Britain. Though found on hedge-banks and waste ground, it seems in an especial degree a weed of cultivation, hence it will be most freely found in corn-fields and garden ground. It blossoms almost throughout the entire floral season, expanding its attractive little flowers in the early days of summer, and keeping up a succession of blossom until late in autumn.

The meaning of the generic name has already been referred to in our remarks on the sweet violet. The specific name *tricolor*, or three-coloured, needs no comment. The name pansy is derived from the French word *pensée*. Our minds at once turn to the passage in Shakespeare, where Ophelia says, "There's pansies, that's for thoughts." That the thoughts the plant is supposed to suggest are altogether right and pleasant ones may be gathered from its other names, heart's-ease and herb-constancy. It is also sometimes by old writers dedicated to the Trinity, because it has in each flower three colours—like many of the old monkish ideas, a somewhat strained and fanciful one. The plant is in many old herbals called the *Herba Trinitatis*.

The heart's-ease was formerly in great repute as a remedy in asthma, epilepsy, pleurisy, and many other ailments. As the plant was also considered a cordial, and efficacious in diseases of the heart, it has been by some writers supposed that its name, heart's-ease, really owes its origin to no such poetical association of ideas as is ordinarily imagined, but that it is simply a testimony to the plant's curative powers. The balance of evidence however, in the writings of our poets goes far to outweigh this idea. Numerous passages from Spenser, Chaucer, Shakespeare, Milton, and the writings of lesser men, might easily be brought forward did space permit, and it would then readily, we think, be felt that the poetical associations very considerably outweighed the medical—that the heart's-ease was no mere absence of bodily pain, but a considerably more subtle presence and possession, altogether beyond the power of pill or potion to produce or to destroy.





SHINING CRANE'S-BILL AND RAGGED-ROBIN.



THE
SHINING CRANE'S-BILL
AND
RAGGED ROBIN.

Geranium lucidum. Nat. Ord., Geraniaceæ.

Lychnis Flos-cuculi.

Nat. Ord., Caryophyllaceæ.

S possibly some of our readers may not have sufficient knowledge of the subject to discriminate correctly between the two species represented so as to be able to say which is which, we may well preface our remarks on the plate by pointing out that the plant with small flowers and rounded

leaves is the crane's-bill ; the large-flowered plant, the ragged robin.

At the same time we imagine that any one who notices the general

form of the meadow crane's-bill or the herb-Robert, plants which form the subject of other illustrations in our work, will find

little difficulty in detecting a sufficiently satisfactory likeness to those plants in the structure of one of the two here delineated to enable them to give a shrewd guess at

the plant best entitled to bear the name of crane's-bill. Probably, on the other hand, the smallest child or merest novice, if asked to pick out the plant they thought most likely to be called ragged robin, would point to the flower with the large, deeply cut, erratic petals, and the guess, as we have seen, would be a correct one; though, as surmise and knowledge are not quite identical terms, our opening sentence is not an altogether superfluous one.

The shining crane's-bill is the *Geranium lucidum* of the botanist. The generic name is derived from a word in Greek that signifies crane, and alludes to the-form of the fruit, which is something like the bill of that bird; while the specific name is the Latin equivalent for bright or shining. Its specific and common English names arise from the smooth and polished surface of both leaves and stems. The plant will, under ordinarily favourable conditions of growth, be found in flower by the beginning of May, and lasts in blossom throughout the summer.

The plant is an annual, but seeds so freely that it holds its ground almost as effectually as if it were more long-lived. It attains to no great height, as the stems, which fork a good deal, spread out laterally. The stems, like those of most of the crane's-bills, are jointed, swelling at the articulations, and brittle. The leaves are in general form circular, but deeply cut into five lobes or broad segments; the lower ones are somewhat simpler in form. The whole of the foliage is, in the spring and early summer, of a peculiarly bright green, but as the days of June pass away the leaves often become bordered with red, and ultimately the whole plant turns a rich crimson colour. The flowers are small, arranged in pairs, and of a beautifully pure rose tint. The calyx is pyramidal in form, the edges of its sepals forming

very conspicuous angles at their lines of contact. Three of the sepals differ somewhat in form from the remaining two.

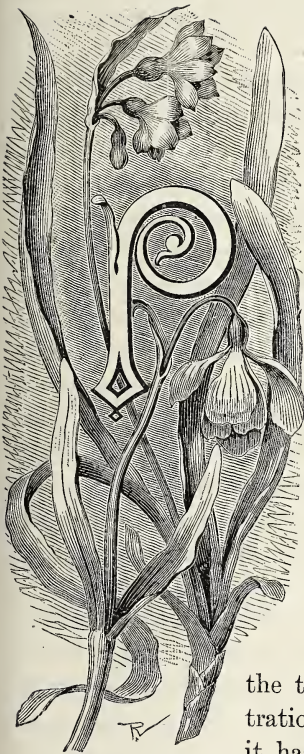
Though at times found in the hedgerow, the natural habitat of the shining crane's-bill is on dry and stony wastes, rocks, and old stone walls, its large masses of shining green or glowing crimson foliage and its small pink blossoms being a beautiful covering to the rugged grey stones that give them support. It is generally distributed, but seems to prefer either a chalk district or a hilly and mountainous tract of country. Several other species of the same genus, and all familiarly known as crane's-bills, may be found. With the exception of one by no means common species, all agree in one conspicuous point: the flower-stem, or peduncle, bears at its summit two lesser stalks, or pedicles, and each of these is surmounted by a flower. This feature, though not absolutely peculiar to the crane's-bills, will practically be found of great service as a means of identifying them; for though it does not quite follow that any unknown plant having its flowers in pairs is a crane's-bill, there is at least a presumption in favour of the idea, while the fact of its inflorescence not being of this character is virtually almost sufficient to prove that it cannot belong to this genus of plants. The following species are, from their commonness, most likely to be met with:—the *G. molle*, or dove's-foot crane's-bill, and the cut-leaved geranium, or *G. dissectum*. The first of these is called in France the *pied-de-pigeon*; both this and the English name are based on the form of the leaf, though the resemblance does not strike us as being at all obvious. In both species the flowers are small, and not very brilliant purple in tint.

The second plant, the meadow lychnis, or ragged robin, the *Lychnis flos-cuculi*, is a near relative of the white lychnis, the subject of another of our illustrations. It is very abundant in most parts of the country where the natural conditions favour its growth, and should be looked for in low-lying lands, moist meadows and pastures, or by the sides of ditches and streams. The general growth of the plant is erect; the stems stand up boldly from one foot to eighteen inches high, and branch but little. The leaves are but few in number, arranged in pairs on the stem, and very narrow in proportion to their length, of the form that is known botanically as lanceolate. The flowers are arranged in a loose head of blossoms. The flower has five large and spreading petals of a bright pink colour, each petal being deeply cleft into four long and narrow segments, the feature that has prompted the familiar name of the plant. The calyx has ten conspicuous ribs and furrows, and, like the upper part of the flower-stalks, is of a dull reddish-purple colour. The ragged robin is in blossom during the spring and early summer. It is a perennial.





SNOWDROP AND SNOWFLAKE.



THE SNOWDROP AND SNOWFLAKE.

Galanthus nivalis ; *Leucojum æstivum*.

Nat. Ord., *Amaryllidaceæ*.

ROBABLY to many of our readers the two plants here figured will be better known as garden blossoms than as real wild flowers. Like the primrose and the foxglove, their beauty and grace have led to their wholesale introduction into the garden ; they are, nevertheless, true wild flowers, as truly wild as any buttercup. It has been contended by some writers that the snowdrop, the smaller of

the two plants represented in our illustration is probably not indigenous ; but it has, in any case, got so thoroughly naturalised amongst us that, whatever may have been the state of affairs five hundred years ago, it is now as much a wild flower in our midst as any of the other plants mentioned in the British Flora, and as such is always included without question amongst them. The snowdrop is a perennial. Its graceful little drooping flowers must be sought for in orchards, shady pastures, woods, and

hedgerows, during February and March. In our own orchard, and nestling deep down in our hedges, we have them springing up by thousands at the opening of each year.

The bulbs grow in compact clusters. The leaves are two in number, bluish-green in colour, long and narrow in form. At the time of flowering they are from four to six inches in length, but after the blossom has died away continue to elongate for some time, and may often be found a foot long, and the vigorous upward growth of their younger days exchanged for a somewhat drooping and feeble appearance. The flowering stem that rises from the midst of these little leaves bears a single flower. The flowers of the snowdrop are somewhat bell-shaped, and composed of six segments. Of these, three are pure white; while the other three, that alternate with these and are placed within them, are considerably smaller, and are tipped or blotched at their outer extremity with a spot of bright green. The three outer and larger segments spread outwards considerably more than do the others.

The snowflake, the larger plant in our illustration, is in many points like the snowdrop, and is, indeed, only divided from it botanically, and put into a separate genus, from the forms of its perianth and anthers. In the snowflake all the segments of the perianth are of equal size; while in the snowdrop, as we have seen, three of them are larger than the other three. In the snowflake the anthers open in longitudinal slits; in the snowdrop, from the top only. The specific difference is indisputable, and the points of difference we have named are those that appeared to Linnæus sufficient to justify the division into two different genera. Like the former plant, the snowflake is a

perennial and springs from a bulb. The leaves thrown up are few in number, a foot or so in length, and very narrow, much like those of the daffodil. The flowering stem rises above these and from their midst; near its summit is a large sheath-like bract, called a spatha: we see it again in the peculiar form of the wild arum, and from this spatha springs the cluster of blossoms. The snowflake delights especially in rather moist meadow-land. Though not so common as the snowdrop, it is very fairly distributed, though chiefly in the northern and eastern counties of England. Curtis, in his "Flora Londinensis," published in 1798, gives a meadow by the river-side between Greenwich and Woolwich, and on the shore of the Isle of Dogs, as two metropolitan localities; but the growth of London must long since have destroyed all chance of finding the plants there. It flowers during May, which, compared with the time of flowering of the snowdrop, may almost be considered summer; hence the plant is often called the summer snowflake. This somewhat erroneous name is also expressed in its scientific appellation, the *Leucojum æstivum*, the specific name being a Latin adjective, signifying that which relates to the summer. The generic name is derived from two Greek words, meaning white and a violet. Of the motive that impelled the great botanist Linnæus to give the plant such a name we can say nothing in explanation. The pure white of the blossoms is an evident fact, but the resemblance, either in form or colour—or anything else, in fact—to a violet is not by any means so clearly beyond question.

The name borne by the snowdrop in the botanical lists is the *Galanthus nivalis*. As the specific name of the snowflake pointed to the blossoming of the plant in

early summer, so the specific title of the present plant indicates the early period of the year when its graceful little blossoms peer above the snow-covered ground, as pale and pure themselves as the soft mantle that covers all but the tips of their leaves and pendant flowers, *nivalis* being a Latin adjective that signifies relating to or resembling snow. The generic name is Greek in its origin, and signifies milk-flower.

From its early appearance and delicacy, the snowdrop has attracted the notice of several of our poets. Of these we can now only mention Drayton, Langhorne, Shelley, Thomson, and Wordsworth, leaving our readers to look up the allusions for themselves.

As the snowflake and the snowdrop would never, under any circumstances, we imagine, be found in flower together, our plate is so far inaccurate; but as the two plants were so closely related botanically, so similar, too, both in appearance and in name, it seemed, on the whole, advisable to represent them on the same plate, trusting to the descriptive text to clear up any misconception that might otherwise possibly arise.





MEADOW-VETCHLING.



THE MEADOW VETCHLING.

Lathyrus pratensis. Nat. Ord.,
Leguminosæ.

ALTHOUGH the plant here figured has full claim to rank with our commonest species, it will probably have scarcely received at the hands of many of our readers the full attention that it deserves, belonging as it does to a very numerous order of plants, the *Leguminosæ*, and being therefore often merely noticed as "some sort of wild pea or vetch, you know." The richness of the colour of the blossoms and the quaint forms of the leaves are, however, points of detail that amply repay a closer inspection, while its luxuriant growth as it trails over and amongst the other

plants of the hedgerow, renders it a beautiful and conspicuous addition to the flora of the country lane. Though called the meadow vetchling, it would, perhaps, could the past be effaced, be more appropriately called the hedge-pea, since it cannot really be considered a meadow plant in any true sense—in the sense, for instance, that the

cowslip, the buttercup, or the daisy are. Its true habitat is the hedgerow, where it can find the support that it needs. Almost all these plant names, however, have received the sanction of so many writers, and have been in use for so many years—in some cases centuries—that any attempt, however desirable it might appear in certain instances to effect a change, would be but useless labour; while in most cases it would be not useless merely, but eminently undesirable, introducing an element of confusion into botanical nomenclature, and destroying at the same time many literary associations. The scientific name of the plant is the *Lathyrus pratensis*. The generic name is derived from the name bestowed on this or some kindred plant by Theophrastus, the disciple and successor of Aristotle. The specific name merely refers to the habitat of the plant, from the Latin *pratensis*, that which grows in, or pertains to, a meadow. These names were first definitely assigned to the plant by Linnæus. A very numerous and appropriate class of plant names arises from the allusion to the place where the plant may be found; of these we need only indicate some instances. Amongst the specific names of systematic nomenclature we get, for example, not only the *pratensis* that has led us to point out this feature, but many others, such as *arvensis*, *aquatilis*, *sylvestris*, *fluitans*, while the familiar English names, water-buttercup, cliff-poppy, pond-weed, wall-flower, rock-rose, corn-marigold, marsh-mallow, bog-pimpernel, house-leek, wood-sage, and many others, carry their meaning so obviously to the mind that any explanation of terms so palpable in their origin is altogether superfluous. There are some few names which owe their origin to the locality in which the plants may be found,

no less than those we have just instanced, but which do not at first so clearly convey their meaning; bulrush is an example of this, for it was originally written pool-rush; the modern name is but a corruption. The common brake also in like manner owes its name to the locality in which it flourishes, the derivation lying doubtfully between *brake*, the German and old English word for underwood, and *brack*, uncultivated ground; but in either case suggestive of the home of the plant.

The meadow vetchling will ordinarily be found in flower by the second or third week in May, and once in blossom continues throughout the entire summer, and indeed far on into the autumn, as the plant may very frequently be met with in blossom right up to September, and even, though more scantily, in the beginning of October. Though so beautiful and graceful in itself, the old adage, "Handsome is that handsome does" is herein to some degree borne out, for an old writer, Parkinson, tells us that it was called in his day the "ramping wild vetch" by the country people, "because it is the most pernicious herbe that can grow on earth, killing and strangling corne or any other good herbe it shall grow by."

The plant is a perennial, and from its weak and straggling nature, and from the freedom with which its branches and develops into a rather thick and tangled mass, does probably cause some appreciable degree of injury, more especially when it springs up amidst a growing crop, and mats it together with its clinging tendrils. The flowers, bright yellow in colour, grow on a long peduncle, and vary in number in each bunch, from about six in feeble plants to about twice that number when the plant is found under favouring circumstances, moist

pastures and hedgerows being the spots where it more especially flourishes. The stipules, the leaf-like bodies at the base of the leaf, the point at which it springs from the stem, are arrow-headed in form, the lower segments of each pair being often curiously crossed and locked together. From these stipules rise branched tendrils, each tendril before it branches throwing off a pair of very long and narrow leaflets. The pods, or legumes, that succeed the blossoms are green in colour, and each contains several seeds.

The broad-leaved everlasting pea, a well-known favourite in cottage gardens, belongs to the same genus, and so too does the narrow-leaved. The first of these, though at times met with apparently wild, has no real claim to a place in our indigenous flora, but the second, the *Lathyrus sylvestris*, is a true native.





CELANDINE.



THE CELANDINE.

Chelidonium majus. Nat. Ord., Papaveraceæ.

WE have already seen, in our comments on the lady's-smock, that a considerable amount of ambiguity and difficulty has arisen from the fact that that and one or two other plants flowering at about the same time are all called cuckoo flowers, and a very similar difficulty has arisen in the present case. The word celandine is derived from the Greek word for a swallow, because the flower is supposed to come into blossom about

the same time that the swallows return to us in each recurring spring; and as several other plants

are then flowering as well as this, the name has not been confined to the present

species. One of the earlier buttercups, a plant we have already figured, though more correctly called the pile-wort is almost as well-known by the name of celandine. The pile-wort is ordinarily called the lesser celandine as a

distinction, but in any case confusion is caused—a confusion that, had more care been taken in floral nomenclature in the olden time, need never have arisen, as the names are the only common point of resemblance between the two plants. The true celandine, the subject of our present illustration, is known botanically as the *Chelidonium majus*—*Chelidonium* having the same derivation and significance as celandine. On this account, too, the plant is sometimes in old herbals called the swallow-wort. Some writers go so far as to assert that the celandine not only arrives, but departs with the swallow; naturally such a statement can only be an approximation to the truth, as so many climatic and other influences arise with potent force to set aside the old theory. The celandine will ordinarily be found in flower by the third week in April, and lasts in blossom throughout the summer; some few specimens being occasionally met with up to the middle of October. The swallows, should the season be mild and open, will ordinarily arrive in the second week in April, and they leave us again about the middle of September, though some few may often be found for almost a month after the departure of the main body. The dates, therefore, sufficiently coincide to satisfy the not too exacting requirements of popular belief. The idea has arisen in our minds, and, so far as we are aware, it has never been pointed out before, that a further point of resemblance, that would have been at least confirmatory to the minds of the older writers, if not in itself sufficient to build a name on, may be found in the fact that both bird and plant seem to have an especial liking for the company of man. The swallow builds fearlessly and confidently beneath the eaves of the cottage roof, and the

celandine, difficult as it is to account for the fact, is rarely, if ever, found away from the neighbourhood of man; its favourite spots being the cottage hedgerow or the waste ground around farm and other buildings.

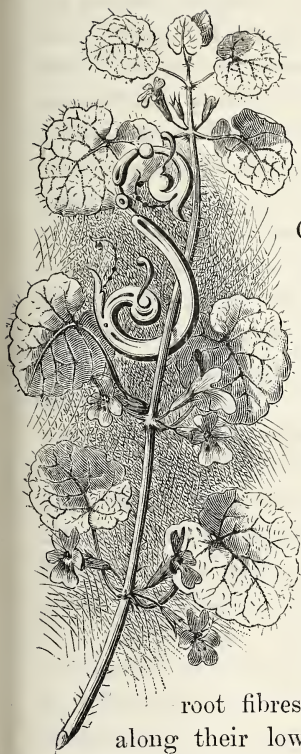
The celandine belongs to the same natural order of plants, the *Papaveraceæ*, as the poppies. The plant is a perennial. The general growth of the plant is erect, its stems tender and delicate-looking, branching a good deal, and attaining to a height of from one to two feet. At the various points at which branches are given off the stem is swollen and jointed, and breaks very easily. The whole plant, but especially the stem, is full of a bright orange juice, that issues immediately and in considerable quantity directly the stems are anywhere broken across. This juice stains the hands a good deal, and if the tip of the tongue be placed in contact with it, the taste is not only exceedingly acrid and nauseous, but lasts a long time in the mouth. The tender nature of the plant was very well impressed on ourselves personally, as the sketch from which the present illustration was copied was made from the fourth handful of the plant we brought home with us; in three preceding attempts the plant withered before we were able to make any use of it. The leaves are very thin in texture, and droop almost directly they are gathered. The leaf is composed of a terminal leaflet and several laterals, and is of a very unusual and beautiful form. The flowers are small and very fugacious, though, as a set-off to the disappointment of finding on arriving home with a specimen that all its blossoms have disappeared, the buds will, if the plant be placed in water, readily expand. The blossoms have four bright yellow petals arranged in the form of a cross, and the novice might possibly at first assign the plant a

place amongst the crucifers, but the dense mass of stamens, a feature never seen in the *Crucifereæ*, would in itself be sufficient to demonstrate that the plant has no such affinity. The inflorescence is umbellate, *i.e.*, all the little stems of the flowers in each bunch spring from one common point, as in the flowering rush and the numerous plants, such as the carrot, hemlock, parsley, water-dropwort, fennel, and chervil, that form, with many others, the great natural order of the *Umbellifereæ*, an order so-called from this form of inflorescence being common to all the species. The inflorescence of the celandine, of the cherry, and of the flowering rush, is in each case in like manner umbellate, but they all differ from each other, and from the hemlock or carrot, in so many respects that each belongs to a distinct order, the many points of divergence being much more marked than the one point of resemblance. On the fall of the flower of the celandine it is succeeded by a pod about two inches in length. As the plant remains in blossom for a very considerable time, the bud, the fully expanded flower, and well-developed pod, may often all be seen together in one umbel.





GROUND-IVY.



THE GROUND-IVY.

Nepeta Glechoma. Nat. Ord., *Labiata*.

O abundantly is the ground-ivy distributed that though it is by no means a conspicuous plant, it is almost certain sooner or later to attract the attention while the eye is scanning the hedge-row. The plant is a perennial, and grows so freely that a large area is quickly covered with a carpet of its leaves. The stems are procumbent, a botanical term applied to such as are feeble in nature, and trail throughout the greater portion of their length along the ground, and

root fibres are freely given off at intervals along their lower portion, hence, like the strawberry or banyan tree, this power of re-rooting itself enables it to spread and retain possession of the ground covered at a long distance from the parent root. From these running stems the upright flowering stems are given off; these flowering stems rarely attain beyond eight inches in height, though at times, when the plant is struggling for existence amidst tall grass or other herbage,

our estimate may be considerably exceeded. The general outline of the leaves is almost a circle, though the modification produced by the two conspicuous rounded lobes at the base has led to the foliage often being rather described as reniform or kidney-shaped. The outline of the leaf is not simple in character, as in the privet and many other leaves, but is made up of a considerable number of rounded lobes or projections. The lower leaves of the plant are often much larger than the others, and are generally on much longer stems; all the leaves are arranged on the stem in pairs, and have a rough and hairy or downy texture according as they are old or young. The whole plant has a very perceptible and not altogether agreeable odour; this naturally becomes still more noticeable if the stems or leaves are bruised at all. All the leaves of the ground-ivy are of the same general character; in many plants a very considerable difference in many ways may be observed between the upper and lower leaves, the radical or floral forms, but any such difference is very slightly marked in the present example. The flowers are almost always a shade of purple, though, like the heath, hyacinth, and almost all other purple flowers, they are at times found of a pure white. The blossoms are placed in a little semicircle at the point whence the leaves are given off from the stem; from three to six blossoms will ordinarily thus be found together, but it is a distinct and noticeable feature in the ground-ivy, as opposed, for example, to the yellow nettle, and many other plants of the order, that the flowers never form a complete ring round the stem, the whorl of flowers is always unilateral, never circular. The flowers are bi-symmetrical in form when seen in front view, not radiate as in the buttercup, and of

the type known as labiate, from a remote resemblance to a human mouth and lips. In this form of corolla the upper lip is ordinarily divided into two parts, and the lower one into three, and the blossom of the ground-ivy is no exception to this general characteristic. The whole order consists of flowers having this lip-like form; they are hence termed *Labiatae*. The white and red nettles already figured, and the bugle, the thyme, the betony, and the self-heal are other examples of the order.

The ground-ivy may be met with freely on hedge-banks and waste ground throughout Britain, the flowering season being from about the middle of March to the middle of July. The flowering shoots are often very rich in colour, the stems and leaves are of various shades of red and purple, and render the plant very conspicuous when growing in a large mass amidst the bright green leaves of the surrounding plants. Great variation of colour exists; in some cases the whole of the flowering stem is rich with this warm glow of colour, while in others only the few crowning leaves at the top of the spray show any deviation from the general green tint of the plant. It would appear ordinarily that when the plant is exposed to strong sunlight this richness of colour manifests itself, while the plants that grow in shady spots are larger and ranker, but without this beautiful variation of colour.

The ground-ivy is the *Nepeta Glechoma* of science, a name that is wrapped in a very decided degree of obscurity. Some writers affirm that the generic name is so called from Nepi, a town in Italy, though what a town in Italy has to do with the ground-ivy is a point that they do not enlighten us on; other authorities, no less valuable, derive it from *nepa*, a scorpion, affirming that the plant was a

specific against the bite of this creature. As the plant grows freely in many other countries, and as in our own happy land in the good old times the scorpion was believed to be bred from many substances that are now credited with no such potent effect, the plant and the animal could actually or theoretically have been brought together, and that, at least, is a point that renders the etymology not hopelessly impossible. The remedial effect of the herb is a further point that may or may not be supported by facts. The common English name is a sad misnomer, as the plant has nothing whatever to do, botanically, with the ivy, nor, indeed, is there anything but the most superficial resemblance, not more, indeed, than the fact that the present plant and the ivy are both at times found trailing on the hedge-bank. In all other respects they are widely different.

Our ancestors used the plant for flavouring beer; it was supposed not only to improve its taste, but also to render it clearer. In old herbals the ground-ivy has a great many names, but as they are never used at the present day it is scarcely worth while to dwell on them at all, though some of them are not altogether lacking in history and interest when analysed.

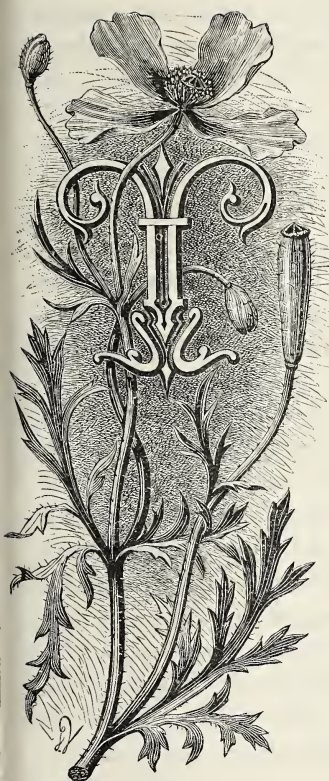




PRICKLY-HEADED POPPY.

THE PRICKLY- HEADED POPPY.

Papaver Argemone. Nat. Ord.,
Papaveraceæ.



THE common scarlet poppy we have already figured, and the subject of the present illustration, though one of our common British poppies, affords a marked contrast to that fine species. The prickly-headed poppy is the weakest in growth, and ordinarily the smallest of all our poppies. Though not unfrequently met with in corn-fields and on waste ground, it is scarcely so common as the *Papaver Rhæas*, while it does not by any means force our attention to it by its brilliancy, as that species does. The prickly-headed poppy is an

annual. The foliage is scanty, the leaves much simpler in form than in the common species, the segments into which they are cut being few in number. The flowers have four petals, and these, from their great length in proportion to their breadth, give the flower a very decided

cross-like form, instead of the circular form that, from the greater breadth of the petals, is seen in the other species of the genus. The red is by no means so intense as in the *P. Rhæas*, and each petal has ordinarily a rather large and conspicuous dark, almost black, spot at its base. The capsule that succeeds the flower, and contains the seeds, is long and cylindrical, and has its upper half studded with bristly hairs. The plant will generally be found in flower during the months of May, June, and July. The botanical name of the prickly-headed poppy is *Papaver Argemone*. The generic name is open to a certain amount of uncertainty. It was first bestowed on the genus by Linnæus, and in many cases the motive that led to the adoption of the various names by the older botanists is now obscure. It has been suggested, however, that the plants were so named because, from a certain narcotic quality that all the poppies, more or less, possess, the seeds were administered in the infantile pap, in Celtic, *papa*, as a provocative of sleep, while on the other hand, on searching out the derivation of the name of this simple food, we find it suggested that it is called *papa*, because the thick and milky nature of the preparation is so called from its resemblance to the milk-like juice of the poppy. We have arrived therefore at the unsatisfactory conclusion that poppy derives its name from pap, and that pap derives its name from poppy, and have no clue as to which suggestion should claim priority, although the first derivation seems to be the least unsatisfactory of the two. Another curious instance of the ambiguity that often manifests itself directly we attempt to analyse the meaning of these old terms is seen in the specific name of another member of the genus, the *P. Rhæas* already referred to. It is

derived from the Greek word *rhona*, a pomegranate, we are told by one authority ; it is from the Greek verb *rheo*, I flow, or fall, in allusion to the perishable and fugitive nature of the flower, another writer tells us ; while a third accepts the verb, but draws a different conclusion, affirming that it is so called because when bruised, a red juice exudes from the petals.

The genus *Papaver* contains five English representatives, of these we have figured two, the present plant, and the scarlet poppy, or red-weed. As we may have no other chance of doing so, we avail ourselves of the present opportunity of referring to the other members of the genus, as they are sufficiently common to render a brief account of them not misplaced.

The remaining three are called, respectively, the round rough-headed poppy, the long smooth-headed poppy, and the white poppy. The plant we have figured in our present illustration has points of resemblance and of difference to the first two of these. It may, for a moment, be confounded in name, or in looking at illustrations merely, with the round rough-headed poppy, but it will be noticed that its head, or capsule, though rough with bristly hairs, is not round ; or it may be likewise mistaken for the long smooth-headed poppy, but it will be seen that its head, though long in form, is not smooth in surface.

The round rough-headed poppy, or *P. hybridum*, is the rarest of our British poppies, it is much more local than the others, and seems to more especially favour a sandy or chalky soil. The flowers are rather purplish in colour, and the capsule, as the name of the plant implies, is globose in form, and thickly studded over with thick bristly hairs.

The long smooth-headed poppy (*P. dubium*) is not

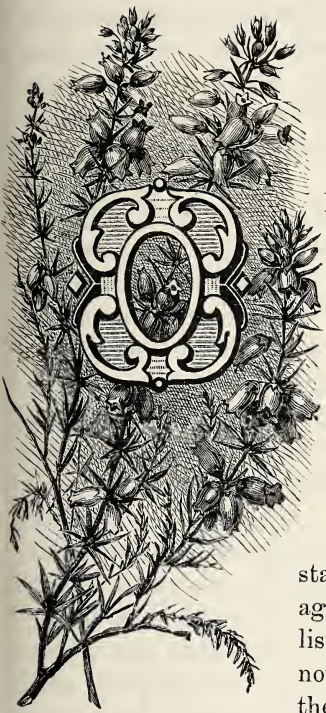
unfrequently met with in cornfields; it bears a strong general resemblance to the common scarlet poppy, but is altogether smaller in its parts, and the flowers are not so deep a scarlet in colour. The capsule, though very similar in form to that of the prickly-headed poppy, is without the characteristic bristles, and the petals are much broader in proportion to their length than in that species.

The only plant remaining to be noticed is the *P. somniferum*, or white poppy. The petals, though ordinarily white, with a purple spot at their base, vary a good deal, and are often found of various shades of violet and red. It is the species that produces the poppy-heads and opium of the pharmacopœia. Though in the first place an escape from cultivation, it appears in several districts of England to have thoroughly established itself.





HEATHER.



HEATHER.

Erica cinerea. Nat. Ord., *Ericaceæ*.

F all the delights that the country life affords surely none can exceed the enjoyment, the exhilarating influence, of a ramble over the heathy moorland. The rich umbrageous forest has a great and special beauty of its own, and as we wander beneath the far-stretching overshadowing arms of the giant beeches, and see the startled squirrels leap with perilous agility from bough to bough, or listen to the belling of the deer, not far away, but invisible amidst the stalwart bracken, we cannot

fail to feel the beauty of the scene. The sombre shade of its rich purple, however, here and there flecked with gold as a few sunbeams struggle through the canopy of shade, and the almost perfect stillness involuntarily affect us; loud, careless speech seems almost a profanation, and as we stand amid the forest monarchs, see their lofty branches interlacing overhead, and hear the souging of the summer breeze as it gently stirs their topmost shoots,

the quiet, awed feeling grows upon us, for we stand beneath the roof of a cathedral grander than any human pile, and catch the strains of a harmony no human voices can give us. The open moorland, on the contrary, gives a sense of exhilaration, and the heart and chest alike expand, for before us in the quivering sunlight stretch miles and miles of rolling country, till the purple horizon melts into the azure of the sky, and all the foreground glows with the rich crimson of the heath or the gold of the furze. As the butterflies flit past us, and the "busy bee," busier than ever with a sense of the importance of harvesting as much as possible of the nectar spread around, goes bustling by, while the lark shoots into the vault of heaven, and pours from thence his ecstasy in song, we share the universal happiness, and as we struggle knee-deep through the heather, and draw in deep draughts of the pure air, the mere sense of living becomes an exquisite enjoyment.

Our readers, possibly, at this point may say that this sort of thing is all very well, but what about the heath itself, the ostensible cause? All that we know about the heath shall be duly set down in good time, but if our feeble attempt to describe the home of the heath shall send our readers in quest of it themselves, we shall have done them a far greater service than any pictured presentment or verbal description we can offer them is worth.

Though it is now some years since we saw it, we remember perfectly the curious effect we once observed on the North Welsh coast. When at sunset the mountains round Penmanmawr were all clothed in purple, one of them nightly assumed a redder tinge than any of the others. At the distance from which we were then viewing the range

the reason of this was a puzzle to us, but we afterwards found, on a closer acquaintance, that this particular mountain was almost entirely covered from head to foot with heather, and that this profusion of intense colour and these hundreds of thousands of small crimson bells, were in the aggregate, sufficient to suffuse the whole mountain-side with a warmer glow than that of its more sparsely-covered neighbours.

Vast tracts of country in Scotland, Ireland, and Wales are covered by the heath, and we meet with it again in the moorland districts of Western and Northern England, and the great stretches of common that are so characteristic of Surrey. It grows generally with the cross-leaved heath and the ling, two other species which we shall hope to introduce to our readers. In colour it is the richest of the three, though in grace of form and delicacy of tint the cross-leaved heath, *Erica tetralix*, is a close rival. All three species flower during July, August, and September. A fortnight often makes a great difference in the appearance of the common, as almost all the plants flower at the same time. If it be visited too early, a mass of green meets the eye; if it be visited too late, the purpled-crimson splendour has changed into the brown hue of decay.

The generic name *Erica* is by some writers said to be derived from the Greek verb to break, a name bestowed upon it from its supposed power of destroying calculus, but others say that the name was given to it from the fragile nature of its branches. We seem to want the proverbial "third course," or what the cookery-books call "another way," for neither of these explanations of the word seems satisfactory: we find no reference of a reliable

character to its healing powers, and so far from its being a fragile plant, this and another species are largely made into besoms, a service to which they would certainly not be put if they strewed with their fragments the rooms they were supposed to cleanse. The specific name *cinerea* is Latin in its origin, and refers to the ashy grey of the stems.

The heather grows rather bushy, as it branches a good deal, the clumps being about eighteen inches high. The leaves are more pointed than in any of our other heaths; ordinarily three large ones and several smaller ones in their axils spring from one point in the stem, and make a series of rings at short intervals down it. The flowers spring in clusters one above the other, these floral rings being more or less dense, according to the specimen: in some an evident interval of plain stalk may be seen, while in others the clusters are closely set together, and form a continuous mass of colour. The flowers hang downward, and are of a colour that may be either described as purple with a good deal of crimson in it, or crimson with a dash of purple in it. The sepals are small and narrow, but are, nevertheless, from the pendulous habit of the blossoms, very conspicuous. The heather is a perennial.





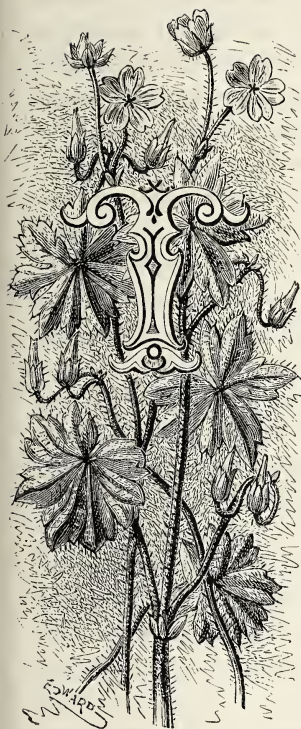
DOVE'S-FOOT CRANE'S-BILL.

DOVE'S FOOT CRANE'S-BILL.

Geranium molle. Nat. Ord., Geraniaceæ.

THE dove's foot crane's-bill is one of our numerous species of wild geraniums. Of these we have already figured the meadow crane's-bill, or *G. pratense*, a plant with very large bluish-purple flowers; the shining crane's-bill, *G. lucidum*; and the herb Robert, or *G. Robertianum*. All the twelve species indigenous to Britain agree in one point—namely, their beauty and attractiveness. The blood geranium, or *G. sanguineum*, despite its unattractive name, is a very fine species. It derives its title from its large and deep crimson flowers. Though found

in many parts of England, it is not by any means a common plant, though it bears transplanting and cultivation well, and may much more frequently be found in the garden than in a wild state. It is found on high ground in dry woods and on limestone rocks, flowering freely in the most inaccessible places during the month of



July. The wood geranium, *G. sylvaticum*, grows from one to three feet high, the stems forking freely, and bearing a mass of purple blossoms at their extremities. The leaves are of the richly cut type presented to us in the meadow crane's-bill. It is a plant of the north, and should be searched for in woods in Scotland and the northern parts of England and Ireland. The only other species to which we need here allude is the long-stalked crane's-bill, or *G. columbinum*, an annual plant, having very slender stems and very deeply-cut foliage. It is found on dry banks and waste ground, and chiefly where the soil is limestone or gravel.

Returning, however, to our dove's foot crane's-bill, the *Troed y golomen* of the Welshmen, we now proceed to go somewhat more fully into detail. The root of the plant calls for no further comment than that, like the root of most annuals, it is very simple in character. As to the general structure of the plant, the stems are weak and spreading, and vary in length from a few inches to a foot. They branch a good deal, are very hairy, and often, especially near their bases, show a good deal of red colour, a crimson as rich and pure as that of the blossoms. The root-leaves are very numerous, and grow on long and hairy foot-stalks; in fact, both the stalks and leaves are covered with soft hair. These lower leaves are almost circular in general outline, but they are deeply cut into lobes or segments, while the leaves of the stem are arranged alternately, and as they ascend become smaller, are divided into fewer segments, and what segments there are are much narrower and more pointed. A glance at the lowest and highest leaves in our figure will at once clearly illustrate our meaning. The flower-stalks are long, and spring from the axils of the leaves. They are forked, and

each bears two flowers. These subordinate flower-stalks have a few small brown scales at the point where they leave the general flower-stalk, and are only about a quarter its length. The calyx is composed of five sepals, and the corolla of five petals, heart-shaped, and a purplish red in colour. With one exception, all our crane's-bills have their flowers springing in pairs from the flower-stalks, a feature that may readily be seen in all the examples of the genus that we have figured. The stamens are ten in number, and the anthers that surmount them are a pale and lilac blue in tint. The dove's foot crane's-bill is one of our commonest species, and may be found in flower from May to August. It should be looked for in dry pastures and on high sloping banks. Where it grows by itself the stems are often almost horizontal, but when it is amongst other plants they are drawn up.

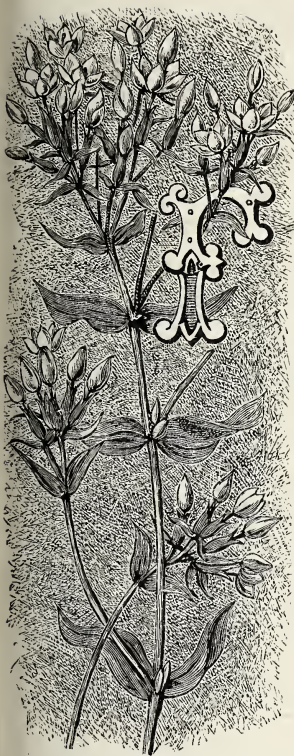
Those of our readers who really want to learn more about our familiar wild flowers will do well not merely to read of them in this or other books, and so derive their impressions through the eyes of others, but to search for them themselves, to gather them, and in these days of art schools to sketch them. Then, again, they may be dried, and thus preserved for years, care being taken to record the date and locality; such a collection rapidly becomes most interesting, both for its own sake and from the associations it recalls. Another good plan is to make notes for oneself about them; the knowledge we have acquired for ourselves has a freshness that the same facts read up out of books can never possess. As a specimen of the sort of thing we mean, we here give our own rough notes made when we were preparing the present drawing. "Leaves dull, very little shine on them, and as the plant often grows

by the roadsides, its deep veins and hairy leaves often catch a deal of dust, making it look greyer than ever. The large root-leaves most conspicuous, clusters of them all showing in plan almost as circles. Flowers very fugacious; had to bring three pickings home to do this by, and then learnt by experience that they should be done instantly, as they closed almost directly, never reopened, and some fell off. Leaves, too, very delicate, soon curl up, but unfold again after being some little time in water. Directly after flowering the sepals fall well back, but close tightly up again and get a good deal larger as the fruit develops. Flowers rarely ever more than half expanded. Sketched May 24, but observed the plants about ten days earlier. Leaves all covered with downy hair, but much shorter than that on the stems. Great many leaves all spring from radical point, and in the midst of them a few flowering stems; radical leafstalks about five inches, flowering stalks about nine inches, but all very unassuming and humble-looking." A mere list of the names of the various species would not be very interesting, nor could we hope to give much idea of them from any verbal description.





CENTAURY



CENTAURY.

Erythræa Centaurium. Nat. Ord.,
Gentianaceæ.

EW of our wild flowers make a gayer appearance in proportion to their size than the centaury, as its slender stems are crowned by a mass of buds and starry blossoms, that, by the beauty of their colour and the grace of their form, assert themselves conspicuously amidst the surrounding verdure. The centaury should be searched for in dry pasturage, in sandy and barren fields, on heaths, and more rarely in the open spaces, in woods. It is an annual, and flowers from the latter part of June, through July and August, and

often well into September; and it is commonly distributed throughout Britain, where the conditions are favourable to its growth. It is a distinguished adherent to the good old principle of "early to bed and early to rise," and proves its efficacy as far as healthiness is concerned; for its early retirement for the day (generally about three o'clock in the afternoon) by no means impairs

its vigour, and if its health does not suffer then doubtless it gains the two other points in the adage, and is both "wealthy and wise," for health is wealth, and its preservation is wisdom. It closes, too, in damp weather, and whenever the sky is overcast. Culpepper, in the fantastic blending of botanical science with astrological folly, so characteristic of the writings of some of the old herbalists, asserts that the plant is "under the dominion of the sun, as appears in that the flowers open and shut as the sun either sheweth or hideth his face." The "dominion" in this case has some little show of reason, but in most instances the assignments of the plants to various heavenly bodies appear of the most arbitrary nature; thus the little celandine is a plant of Mars, the chickweed is under the dominion of the moon, cinquefoil is an herb of Jupiter, the columbine owes allegiance to Venus, and the cross-wort is a plant of Saturn.

Work of an artistic nature is best done in a room having a northern aspect, as the light is more equable; but we soon found that we need expect no co-operation from our little centaury in favour of that idea, for piece after piece that we brought home we found rapidly closing, and it was only when we took our water-jar and its contents into a room with a southern aspect, and stood them in the direct sunlight, that the flowers could be induced to remain open.

The root of the centaury is fibrous and woody, and from this the stiff and upright stem ascends to a height of from seven or eight inches to a foot. The stem is smooth to the touch and angular in cross-section; it branches considerably at the summit, though the lower part is ordinarily without any lateral developments of sufficient size and importance to break the rigidity of its aspiring ascent.

The lowest leaves are broader than the others, and form a spreading tuft at the base of the plant, while the smooth and stalkless stem-leaves grow in pairs at somewhat distant intervals on the stalk. The stem-leaves are often very upright in general direction, as may be seen in the lowest pair in our illustration, and all have the three principal veins or nerves very sharply indicated on their upper surfaces. The flowers are borne in numerous clusters on the freely-forking stems, and form a rich-looking terminal mass of colour. The calyx is composed of one piece, but this is deeply cut into five pointed segments; these segments taper towards a point instead of spreading outwards, as we find them doing in so many other plants. The whole forms a long and slender tube. The corolla, too, is tubular for some little distance, and then expands into a broad star-like form, the five sharply-cut segments in which it terminates standing boldly out. Though the flowers of the centaury are ordinarily a rich yet delicate pink in colour, we may occasionally come across a specimen where they are pure white. Curtis, in his "*Flora Londinensis*," speaks of this variation from the type as "not uncommon," but we do not ourselves remember having ever seen an example of it; and Parkinson, in writing of the plant, says that "it is found in our owne countrie in many places, the ordinary sort almost everywhere in fields, pastures, and woods; yet that with the white flowers more sparingly by much than the first." He is very careful, too, to make us understand that this colour-variation is, so to speak, an accident that concerns the flowers alone, and holds out no justification whatever for considering it a different plant at all, for, in speaking of it, he says with quaint decision, "This small centory differeth not from

the former, neither in stalke nor leafe, neither in forme or height, but only in the colour of the flower, which is white as the other is red." The stamens are five in number; their anthers have a curious way of twisting themselves round after they have shed their pollen. This spiral twist is a very marked feature in the genus; though a point too small to show in our illustration, it may be readily noted in the living plant. It is one of the distinctive points between the plants of this genus and those of gentiana, many of the plants of which greatly resemble the centaury in general structure. The style is single, but terminates in two stigmas. Almost all the plants of the order *Gentianaceæ* possess eminently bitter and medicinal qualities, and the centaury is no exception. It is, indeed, so bitter that the old herbalists call it *fel terræ*, or earth-gall, and the Anglo-Saxon name is equivalent in meaning to this. As this bitterness had a healing and tonic effect attributed to it, we sometimes find the centaury called the *Febrifuga*; Culpepper, we see, says of it, "'Tis very wholesome, but not very toothsome."





ORPINE.



ORPINE.

Sedum Telephium. Nat. Ord.,
Crassulacæ.

THE plant here represented is one of the numerous species of house-leeks, of which the common stonecrop, another plant in our series, supplies us with a second example. They are also called collectively stonecrops. The first name refers to the habit that many of the species, and notably the *Sempervivum tectorum*, or common house-leek, have of springing up on old thatched roofs or the tops of walls. The first half of the word is sufficiently explanatory

in itself; the second half is from the Anglo-Saxon *leac*, a plant, literally therefore the house-plant. The second name, the stonecrop, will need no explanation to those who have seen the old stone walls and rocks in many parts of the country one mass of golden blossom from the flowers of the *Sedum acre*, or common stonecrop. Of the stonecrop we have more to say elsewhere, but as the house-leek does not appear in our series, we may just pause to refer to it. It is a native of the mountain-ranges of central and southern

Europe, but the strangeness of its growth and its quaint appearance have led to its wide introduction, and it may now abundantly be found throughout the country, its large rosettes of great fleshy leaves being prominent on many an old roof in country districts.

We write these lines in a district surrounded by great swelling chalk downs that appear to cut it off in its isolation from the rest of the world, and the whole district is permeated with superstitious folk-lore; one example of this will suffice. We were struck with the beauty of some flowering-stems of house-leek on a cottage wall, and, not then knowing their occult power, were desirous of plucking one or two of them, with a view to closer examination, and a possible sketch. We at once found, however, that this was a totally inadmissible idea. Two heads of the flowers had, in spite of strong remonstrance, been gathered the previous season, and before the year had run its course a brother and an uncle had died. As the evil appeared to descend upon the dwelling thus violated, we could only bow to circumstances, and leave the household fetish alone.

All the plants of the order have fleshy and succulent leaves, but the orpine is easily distinguishable from most of the others from the fact that while its leaves partake of the fleshy character of all the other species of stonecrop, it has flattened leaves, a peculiarity that is only shared by the rose-root, or *Sedum Rhodiola*. The root-stock of the orpine is perennial, rather large and swollen-looking, and containing within itself a store of nutriment to maintain the plant in the somewhat sterile places in which it may ordinarily be found. The true home of the orpine is in the hedge-banks and on waste ground sheltered by bushes, though the beauty of its flowers and leaves often leads to its being

transplanted to the cottage garden. Our illustration is taken from a field specimen, which we gathered off a hedge-bank. In its wild state the plant is from one to two feet high, but in the garden we have seen it a yard high. The stalks thrown up are numerous, upright, unbranched, round, and solid-looking, and generally a rich red in colour, their upper portion especially being often in addition a good deal spotted and streaked with a deeper red. The leaves are numerous and coarsely toothed. In some plants the upper leaves are rounded at their bases, and are without stems, while in others we find them attenuated and tapering at their bases, and borne on a short stem. In colour they are a bluish green, giving the whole plant when seen as a mass in the hedgerow a somewhat cold greyish appearance. The flowers are carried in compact heads at the tops of the stems, and form a brilliant mass of crimson colour. The spreading and acutely-pointed petals ranging boldly out from the centre, and the ten conspicuous stamens, are very noticeable.

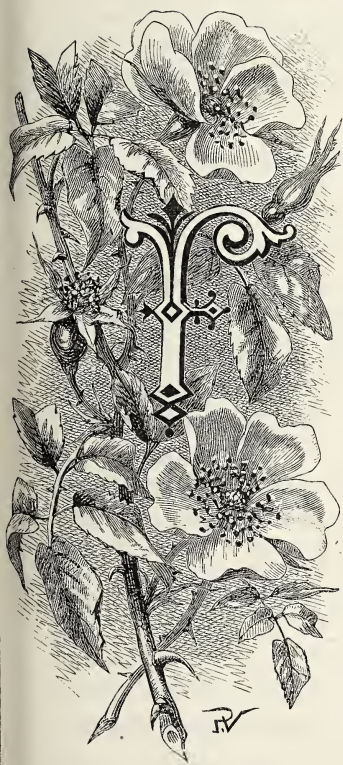
The generic name is derived from the Latin verb *sedo*, to sit, in allusion to the way that many of the plants of the genus appear to drop themselves on rock or brick-work or thatch, with little or no earth in support. The present species, the orpine, has a wide distribution, and in sunnier climes than ours it is a plant of the mountains. Lindley, we see, gives its true habitat as mountainous woods, and Casalpinus, an early herbalist, calls it the *Crassula montana*, but it grows freely with us in lowlier situations. It may possibly have been an introduced plant originally, but it is so tenacious of life that it has become thoroughly at home with us. This tenacity of life has gained for it the name of live-long. We have heard of its being used in

some country districts as a decoration for a fireplace-screen or chimney-board, a framework of wood being covered with the plant. We are told that if this be sprinkled with water about once a week it will continue fresh and green-looking for some months. This vitality led to another old custom. On Midsummer Eve betrothed maidens used to gather two plants of orpine, and set them on a trencher, and estimate their lovers' fidelity (or possibly their own fickleness) by the continued flourishing and well-being or the reverse of one or the other plant. Hence its name got a considerable addition to it, and was sometimes given as live-long-love-long. Its most familiar English name, orpine, is a curious illustration of the perversity we sometimes meet with in old plant nomenclature. It is derived from *auripigmentum*, the gold-coloured pigment called orpiment, a most appropriate name for the stonecrop and several other plants of the genus, but, by a perverse ingenuity, applied to almost the only plant that does not possess the brilliant hue of orpiment.





SWEET-BRIAR.



SWEET-BRIAR.

Rosa rubiginosa. Nat. Ord., *Rosaceæ*.

EW of our wild plants are more enduringly attractive than the subject of our present illustration, for it not only possesses all the beauty of form and odour and colour that gives so great a charm to the other species of wild roses that adorn our hedgerows, but adds to these a fragrance of foliage that is peculiarly its own. Hence probably most of our readers will have formed their acquaintance with the plant from having found it cherished in some cottage garden. Like the snowdrop, the foxglove, and many other plants, it pays a

certain price for its place in popular esteem, and is rarely suffered to remain in its native *habitat*.

Under its older name of eglantine we find its praises sung by many poets. The botanist may possibly at times in his analysis and dissection run some little risk of losing the sense of the living beauty of the blossom that he demolishes in his search after structure and systematised facts, while the poet and artist, less concerned with technicalities, and often really ignorant of much that is wonderful in the adaptations of means to ends, do, nevertheless, by a few touches, picture to us this living beauty. How redolent and appreciative, for example, are these lines of Shenstone :—

“Come, gentle air! and while the thickets bloom

* * * *

Convey the woodbine’s rich perfume,
Nor spare the sweet-leaved eglantine.”

How we find them recalling to us some woodland glade, blossoming in all the wealth of the summer, and the scarcely moving air bearing to us the rich fragrance of the honeysuckle clusters! In Spenser, too, we read—“Sweet is the eglantine;” and Drayton again calls it “sweetest eglantine.” Milton, in one very familiar passage, introduces the plant not only by its two names, but as though two distinct flowers were intended—

“At my window bid good-morrow,
Through the sweet-briar, or the vine,
Or the twisted eglantine.”

Here, we are afraid, with all deference to so great a poet, we can only feel that he has fallen into an error—the “twisted” woodbine or honeysuckle being probably intended, as its long rope-like stems, twining round each other, would make the epithet he uses a very appropriate one. Shakespeare introduces the two plants very

beautifully and with perfect clearness, in his description of the bank—

“Quite over-canopied with luscious woodbine,
With sweet musk roses and with eglantine,”

so that we see that long before the time of Milton the name and individuality of each plant was well established. In another well-known passage of Shakespeare the sweetness of “the leaf of eglantine” is again referred to. With Keats it is “the pastoral eglantine;” with Mant “the fragrant eglantine;” and Scott speaks of a scene where

“Nature scatter’d free and wild
Each plant and flower, the mountain’s child.
Here eglantine perfumed the air,
Hawthorn and hazel mingled there.”

The sweet-briar was one of Scott’s favourite shrubs, and we not long ago met an interesting proof of this fact in one of his letters. The note in question was written by him from Edinburgh to William Laidlaw, his friend and agent at Abbotsford, soon after that property had come into his possession. In one part he says—“You must get some one to stick in a few wild roses, honeysuckles, and sweet-briars in suitable places, so as to produce the luxuriance we see in the woods which Nature herself plants. We injure the effect in our planting, so far as beauty is concerned, by neglecting underwood.” We find in the account sent in that the “few sweet-briars” numbered two thousand.

The flowers of the sweet-briar are somewhat smaller than those of the dog-rose, and are often a deeper pink, though this strength of colour differs in various plants, some being richer in tint than others. The fragrant odour of the foliage is itself so distinctive of the plant that no lengthy description is here necessary. The sweet-

briar appears to delight in open copses, though at times we find it amongst the mass of plants that crowd on each other in some old hedgerow. It seems to be more especially partial to chalk, and its delicate blossoms are displayed during the months of June and July.

Like almost everything else, the sweet-briar was, in the "good old times," accredited with remedial virtues. Many of these remedies date as far back as Pliny, and subsequent writers adopt them without question, contenting themselves with adding, "as Plinie sayth." The briar-wood pipes so largely used by smokers are made, not from the wood of the present plant, but from that of the tree heath (*Erica arborea*). The wood comes from the south of France, and our English name is a corruption from the French word for heath, *bruyère*.

The sweet-briar is the *Rosa rubiginosa* of the botanist. Its generic name has already received full explanation in our comments on a preceding species of wild rose. The specific name is the feminine form of the Latin word for rusty, a good deal of a brownish-red tint being often found on both stems and foliage, which are, in botanical parlance, rubiginous.

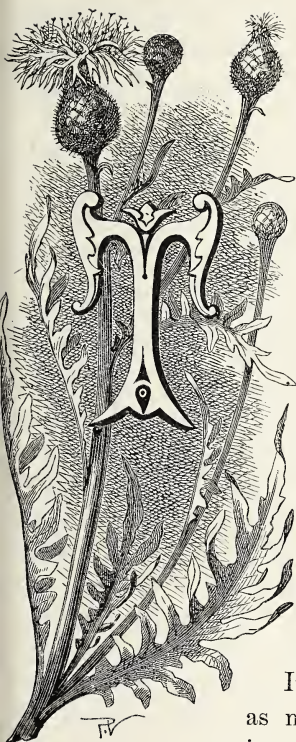




LARGER KNAPWEED.

THE LARGER KNAPWEED.

Centaurea Scabiosa. Nat. Ord.,
Compositæ.



THE species of knapweed we have here represented, though of very general distribution, is somewhat local. It is found freely almost throughout England, but is one of the rarer plants in Scotland, and seems to thrive best in chalk districts. It flowers throughout the summer and autumn months, and will be found on poor pasturage, on the waste land that may sometimes be met with bordering the hedgerows, in the angles of poorly-tilled fields, and by roadsides.

It is a rather tough and stout plant, as may readily be found on attempting to pluck a piece—a matter of no slight difficulty unless a knife be at hand—as no amount of twisting and jerking seems at first sufficient to detach a piece. The stems branch a good deal, and spring boldly up to a height of some three feet or more; it is therefore

a rather conspicuous plant when in vigorous growth and condition. The leaves are very deeply cut into long and narrow lobes, and have their edges coarsely serrated. The lower leaves are very large, often a foot or even more in length, and, as they are rather numerous, they make a striking-looking rosette on the ground as a base from which the flowering stems ascend. The flower-heads are large, and rich in colour. They rise from a solid-looking head, a mass of bracts lapping over each other like tiles, each having a central green portion and a black fringe-like edge. In some country districts the plant is, from this solid globose involucre, called hard-head; and the more ordinary English name, knapweed, is no doubt based on the same idea. We have never seen a derivation suggested, but if we may be allowed to venture on one ourselves, we would say that probably this name is a corruption of knop-weed. Knop is, we know, a good old English word for what in these days we should call a knob, a hard, globular mass; it may be found in our established version of the Scriptures, as in Exodus xxv. 31 and 33, where, amidst the fittings of the tabernacle, we find a candlestick having knops and flowers, and bowls having knops and branches of almond; while in 1 Kings vi. 18 we find the word again, where, in the description of the temple built by Solomon, we read that the cedar doors were carved with knops and open flowers. The knops are in this latter case given in the marginal reference as gourds; but this is immaterial to our present purpose, or perhaps rather illustrates it, as all we desire to show is that a knop, like a gourd, is a globular form.

The botanical name of the knapweed figured is *Centaurea Scabiosa*. The generic title, we are told, is given to

the plant because, either with this or some other species of the genus, the Centaur Chiron cured himself of a wound received in the foot from Hercules. There must, however, surely be an error here, as in the ordinarily accepted myth the wound was a mortal one. There is another common plant found in the chalk districts—the home in an especial degree of the knapweed—called the scabious, a plant, in general size, form of leaf, and other features, very similar to the present plant. The word scabious is derived from the Latin word *scabies*, an irritating roughness or eruption of the skin, a term still employed in medical science. The plant was so called because it was formerly employed as a remedy in this and other cutaneous affections. It will be noticed that the specific or second name of the knapweed is also *scabiosa*; but whether it is so called from its resemblance to that plant, and therefore the scabious-like knapweed, or whether it is from its having the credit of possessing healing virtues of a similar character, we cannot say. We do not in any old herbal accessible to us find this particular application of its remedial efficacy, though it is credited with healing power in several other directions—staying bleeding of the nose, curing inward wounds, being “good for those that are bruised by any falls, blows, or otherwise, and is profitable for those that are bursten,” and a sovereign remedy for sore throat and many other things.

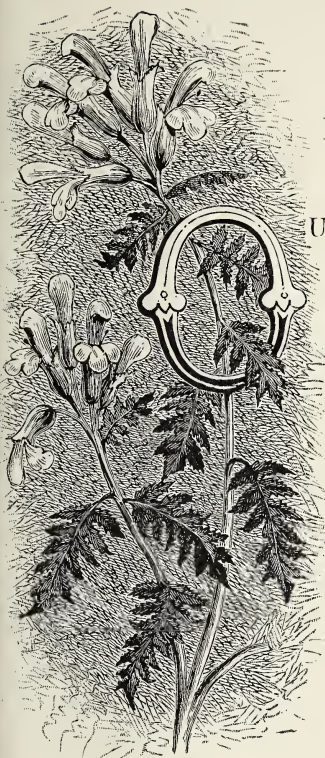
There are six or seven other species of *Centaurea* more or less commonly to be met with. We give the number in this rather vague way, for, while some botanists accept certain forms as having specific value, others regard them but as varieties. The black knapweed, or *C. nigra*, is a very widely distributed species, being found almost

everywhere throughout Britain in meadows and hedgerows. The corn-flower or blue-bottle—the *C. Cyanus*—is a very beautiful species, and one of the most characteristic plants of the corn-field ; it is hence called *par excellence* the corn-flower. The central part of the flower is bluish-purple, the outer florets large, widely spreading, and of an intensely deep and pure blue, vying in strength and brilliancy of colour with the rich yellow of the corn-marigold or the scarlet of the poppy, its companions of the harvest-field. Other species are the star-thistle, or *C. Calceitrapa*, and the yellow knapweed, or *C. solstitialis*. The first of these, a striking-looking plant, is found occasionally by roadsides and waste places in the south of England ; the second seems to prefer similar localities when within the influence of the sea breezes ; like the former, it is a southern and somewhat rare plant.





LESSER RED-RATTLE.



LESSER RED-RATTLE.

Pedicularis sylvatica. Nat. Ord.,
Scrophulariaceæ.

OUR name for the present plant sufficiently indicates the existence of a second species, for a lesser red-rattle implies a greater red-rattle, but we have selected the present species, though it is the smaller of the two, because it is considerably the more common. It is a perennial, and should be looked for in moist pastures and swampy heaths and wastes. The plant begins to blossom in the spring, and lasts all through the summer, so that any time

from April to August we ought to find its delicate pink blossoms. Our expression, "should be looked for," is a sufficiently accurate one, for though the plant is commonly distributed over Britain, its small size does not make it by any means noticeable. The piece we have chosen for our illustration was springing up amongst the roadside grass, and is an exceptionally

drawn-up specimen; the plant ordinarily nestles more closely to the ground, and varies from three to five inches in height. The stems are prostrate and spreading, branching a good deal at the base. The leaves of the lesser red-rattle are very deeply cut into lateral and numerous segments. The calyx is smooth on the exterior, but woolly within at the mouth, broadly inflated, and marked over with a fine reticulation of veins. At its summit it is cut into five unequal lobes of a foliaceous or leafy character. The corolla is tubular within the calyx, and opens out at its extremity into two very distinct parts, an upper lip of very simple form, dome-like, but compressed at the sides, and a lower lip flatly expanded and cut into three very distinct lobes, forming altogether both in form and colour a very quaint and attractive-looking flower. The stamens are four in number, two being longer than the others; one pair has numerous hairs near the summit, the other pair being perfectly smooth.

We have already figured a near relation of the present plant—the yellow-rattle or *Rhinanthus crista-galli*. These plants all derived their names from the fact that as the seeds ripen they may be heard rattling within their capsules when the plant is shaken. “There be two kindes of rattel grasse, one which beareth redde floures and leaves finely jagged or snipt, the other hath pale yellow floures and long narrow leaves snipt like a sawe round about the edges. The first kind hath leaves very smal, jagged, or dented, spreade abroad upon the ground. The stalkes be weake and smal, whereof some lye along trayling upon the ground and do beare the little leaves, the rest do growe upright as high as a man’s hand, and upon them growe the floures from the midle of the stemme round about

even up to the top, somewhat like to ye floure of the red nettle. The which being falle away there grow in their place little flat powches or huskes wherein the seede is contained." Many of these old descriptions, quaint as they are in expression and spelling, go closely home to the root of the matter, and in most cases describe very accurately the details of the various plants. The foregoing is from Lyte's translation of Dodonæus.

The presence of the red-rattle is ordinarily an indication of defective drainage, but this clearly is no fault of the plant, though it has had to bear a good deal of unmerited abuse in consequence. It is a great pity that a delicate and beautiful plant should be called foul names, but we are bound to add that the name by which it is best known and by which it is called by all the old writers, is "louse-wort." This libellous epithet arose from a belief that sheep eating it became diseased and covered with parasites; but when the sheep suffer it is not because of this plant, but because they have been put into marshy and unwholesome pastures. The little rattle is in reality a benefactor, for it indicates where the marshy places are, and marks the spots that need the farmer's attention. The generic title *pedicularis* refers to its supposititious vermin-producing qualities, and hands the libel down to posterity.

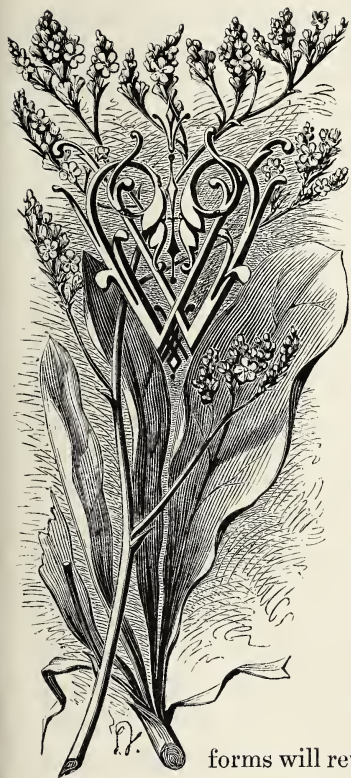
On taking down our Parkinson, the "Theatrum Botanicum, or the Theater of Plants," to see what he had said on the subject, the following line in the index was rather startling:—"Yellow Rattle and Red Rattle, 713; The Indians' Rattling God, 1666." We naturally lost little time in turning to page 1666, and were so far edified that, though we are afraid the plant cannot claim much kinship with our *pedicularis*, except in its power of rattling, we are

sure our readers will be glad to share our find with us :—
“The Portugals possesse a certain country in America called Morpian, which is ful of very good fruits, and among the rest the Nana or Pinas. There is also growing a tree whose fruit they call cobyne, having leaves like to those of the bay-tree, and fruit as bigge as a melon, formed like unto an estridge egg, which, although it is not eaten by any of them, yet is very beautifull hanging on the tree. The savages used to make drinking cuppes of them, but besides that they commit idolatry therewith, which is wonderfull and to be lamented, for having emptyed and made hollow these fruites, they fill them with the seeds of milium or some such thing, which, being shaken with one’s hand or withe the winde, will make a noyse; then do they fasten a pole into the ground and sticke this fruite full of those seede on the toppe thereof, and fasten about it the most beautifull feathers of birdes they can get. Every house hath two or three of these fruits decked up in this manner sticking on the poles, which they have in great reverence, thinking some god to be in them, because when they are shaken they make a noyse.”





SEA-LAVENDER.



THE SEA-LAVENDER.

Statice Limonium. Nat. Ord.,
Plumbaginaceae.

HILE the botanist and the lover of plants who makes no pretension to scientific study alike delight to wander by the hedgerows, to follow the source of some of our winding streams, to search amidst the ripening grain in our corn-fields, to peer in the nooks and crannies of some old ruin or of some weather-beaten cliff, or to lose themselves amidst the far-stretching shelter of some noble forest, sure that in all these varying circumstances some interesting and beautiful

forms will reward their search, we can readily imagine that the botanist alone would ordinarily turn his steps to the low-lying and dreary-looking salt-marshes, or search the shingle along the sea-coast. Yet these bleak and unpromising-looking spots have a flora of their own: one by no means so extensive as that of many of the localities we have above enumerated—one that

contains few forms that can vie in grace with those of the hedgerow, the forest, or the stream, but which is, nevertheless, far richer than many who had never explored its unpromising stretches would imagine, and that contains many quaint and beautiful forms that can be seen in such situations alone. The hard conditions under which these plants have to grow gives them often, too, a weird and angular individuality that is very curious; something like that of trees growing near some open coast which show clearly how hard the struggle for existence has been; the branches seem blown landward, and the whole form is crippled and bereft of its natural appearance in the hard fight against the bleak salt-laden winds that roar at times with an almost resistless fury over the inhospitable shore.

We have already represented the yellow horned-poppy, one of the most striking plants of the maritime flora, and the present illustration gives us another, the sea-lavender.

The sea-lavender, or *Statice Limonium* of the systematic botanist, is frequently met with on the muddy shores at the mouth of some river, and in the salt-marshes that fringe the sea in many places. It is less common, however, in Scotland than in either England or Ireland, only one or two localities being given for it in the floras of the former country, while in England especially it is freely found where the conditions of growth are favourable. It appears to bear removal well; we have seen it flourishing and a perfect mass of bloom in gardens some distance from the sea. July, August, and September are the months in which it will ordinarily be found in flower.

The stock of the root of the sea-lavender is perennial, and from this rise the tufts of large radical leaves. These leaves are dark green in colour, glossy in surface, somewhat

thick in texture, and from four to eight inches in length. The form is very simple, somewhat egg-shaped, but having a pointed apex, while the base of the leaf passes almost imperceptibly into the lines of the long stalk that bears it. The veining, owing to the texture of the leaf, is very indistinct, and but little more than the mid-rib of each leaf is noticeable. From this large and conspicuous rosette of leaves rise the flower-stalks. These are leafless and fork very freely; and from the general lightness of the effect, the absence of leaves and the small size of the blossoms, they present a great contrast to the heavy-looking mass of foliage from whence they spring. The flowering-stalks are some eighteen inches or so in height, and the numerous divisions into which they fork spread and curve boldly outwards. Towards the ends of these branches the numerous flowers are found growing in closely-packed spikes. The calyx is, in its upper part, purple, in its lower part green. The spikes of flowers are unilateral, *i.e.*, all the flowers are thrown off from one side, the upper in this case; there is, therefore, the same general direction in them all, and while in one spike the eye sees all the blossoms in side view, in another spike, owing to a twist in the stem or some other cause, one sees nothing but a long line of little circular blossoms all fully displayed. The flowers are of a bluish purple or lavender colour (hence its common name), and have five petals. The plant is very astringent in its nature, and has been advantageously used where medicines of that quality are desirable, a fact alluded to in its generic name, a title derived from the Greek verb *to stop*.

A variety of the plant, similar in its habitat, but smaller and less densely flowered, is frequently met with. Though

the differences are so slight as often to make it doubtful whether the plant be a variation at all, or merely an imperfectly nourished and developed plant, that would otherwise have been of the typical form, attempts have been made to give it an independent specific position, under the title of *S. rariflora*, or *S. Bahusiensis*.

Two or three other species of *Statice* are found around our shores, but as they are not by any means so common as the species we have figured, we need do little else than merely state the fact, leaving any of our readers who care to do so to turn to the description of them in any British flora, if they are so fortunate as to find a plant that is so far like our illustration as to lead them to think it some allied species.





HEDGE CALAMINT.



HEDGE-CALAMINT.

Calamintha clinopodium. Nat. Ord., Labiatæ.

ANY of our readers will no doubt be aware that in the earlier days of botanical science sundry artificial systems of plant classification were devised, but that these have all now passed away, and what are known as natural systems succeeded them. We speak of both the artificial and the natural in the plural, as each great principle received various modifications from different hands. The best-known example of an artificial system is that of Linnæus, a system based on the number and position of the stamens and pistil. By this method all plants were divided into classes,

according to the number of their stamens, and these subdivided into orders based on the pistils. This was so far an advance, that any one finding a plant with six stamens, for example, referred it at once to the class hexandria, and if it had two pistils it belonged to the order digynia; by this means the ground to be hunted over

before the name was ascertained was greatly narrowed. The great objection to the system is that plants of the most different natures are classed together simply from their possessing the same number of stamens or pistils; thus, the valerian and the iris are placed together, though in every other respect they differ widely. Linnæus himself only regarded his arrangement as a temporary one, and before his death arranged all the known plants of his day in what may be termed a natural manner. Jussieu, De Candolle, and Lindley have all worked in this direction, and it is on their labours chiefly that modern botanical science is founded. The natural system is the grouping together of plants that have the greatest degree of similarity in their various parts, properties, and qualities, and by its aid the nature of an imperfectly known plant may often be judged by that of another and more familiar species with which it is evidently allied.

The labiate order, to which the hedge-calamint belongs, is one of the most clearly defined, all the very numerous plants that belong to it being very similar in their general growth. In all of them the calyx is tubular, and the corolla is monopetalous, or all in one piece—one could not pick it to pieces as we can a buttercup flower. The stamens are four in number, and the stigma has two lobes. The leaves always grow opposite to each other in pairs, and the stems are seen to be square when cut across. Many of the species of the order abound in an essential oil, and have a strong odour when bruised. We find them largely employed by the perfumer, the regular practitioner, or the rustic herbalist. Sage, mint, peppermint, thyme, marjoram, horehound, betony, wound-wort, ground-ivy, and self-heal are all characteristic examples of the order.

This strong similarity makes the order a difficult one for the novice to deal with when he has only a verbal description of any particular plant before him ; but by the aid of our coloured illustration our readers should find less difficulty in identifying the hedge-calamint when they come across it. There is one curious little peculiarity in the calyx of this species of calamint that may be mentioned as an aid. It is always ribbed with thirteen longitudinal ridges, while in the ground-ivy these are fifteen in number, and most of the labiates have either ten or five of these projecting ribs. The root of the hedge-calamint is perennial. The stems are rather weak-looking, though erect ; they rise to a height of a foot or eighteen inches, and are thickly covered with soft hairs. The leaves are on short stalks, only slightly toothed at their edges (when we compare them with such a labiate as the white dead nettle, a plant we have already figured), soft to the touch, and, like the stems, clothed with soft hair. In fact the whole plant, except the root and blossom, has this soft grey covering. The flowers are a pinkish purple, and arranged in rings round the stalk at the points where the leaves are thrown off. These rings as the flowering season advances become a dense mass of blossom, but in our illustration we have selected the plant at an earlier period, as we are thus able to show the shapes of individual flowers more clearly.

The hedge-calamint flowers during July, August, and September, and may be looked for in the hedgerow, and on the borders of woods and copses, especially if the situation be somewhat elevated, and the ground dry. It is common in England and Scotland, but appears to be rare in Ireland, the greater humidity of the air there having probably something to do with this.

The generic name is derived from two Greek words, signifying good and merit—its goodness consisting in the ancient belief in its power to drive away serpents and the dreaded basilisk; while the specific name, *Clinopodium*, means bed-foot—"the tufts of the plant are like the knobs at the feet of a bed," an old writer tells us.

The basilisk was in mediæval times a fabled monster—the king of the serpents, and in calamint lore the sense of the word basil seems hopelessly obscure, the general medicinal value of the plant and its special efficacy in basilisk destruction being more or less mixed together, and the name is emphasised in one or the other direction according to the idiosyncrasy of the writer. If a basilisk only set his eyes on a man it caused his death. We see this idea in Shakespeare's *Henry VI.*: "Come, basilisk, and kill the innocent gazer with thy sight;" and Beaumont and Fletcher, too, in their "*Woman-hater*," speak of "the basilisk's death-doing eye." Under these circumstances the knowledge of the properties of herb-basil was a decided advantage. The only way, we are gravely told, to kill these monsters was to put a mirror in their haunts, as the actual sight of its own horror was no less fatal to itself than to mankind.





RAG-WORT.

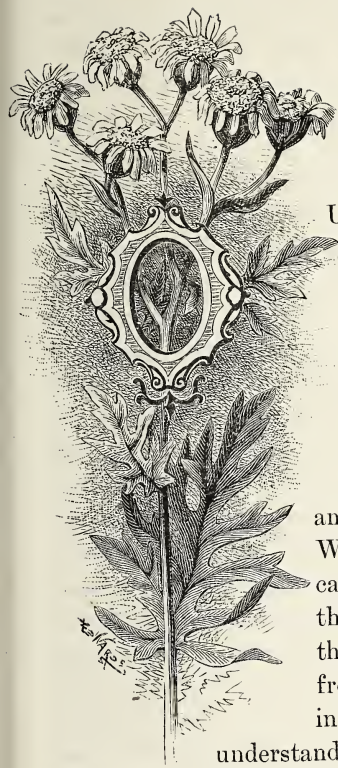
RAG-WORT.

Senecio Jacobæa. Nat. Ord., Compositæ.

OUR present plant suffers from the misfortune of its commonness. Hooker, we see, speaks of it as "too plentiful." Were it not so familiar a plant, its sturdy growth and golden mass of star-like flower-heads would doubtless render it a favourite, but what people can see almost any day they soon cease to regard. We have seen many a tender plant carefully nurtured in the hothouse that has not the inherent beauty of the rag-wort, but then one comes from Java and the other can be got in the next field, and everybody

understands what a difference that makes.

Where the pastures are mown for hay the plant may be kept down, as the rag-wort, though a perennial, seems unable to thrive under such treatment, unlike many plants that only shoot up more strongly and bushily than ever after being cut down. In pasture-lands and meadows that are not thus annually cleared the rag-wort escapes the bite of the horses and cattle and



develops into a large rank growth, occupying much room, and propagating itself abundantly by its downy seeds. A meadow well sprinkled over with the plants, each of them three or four feet high, and a mass of golden blossom at their summits, is a strikingly picturesque feature in the landscape, though possibly the human occupier of the ground may resent their presence. It is, however, a sight that one so often sees—some meadows having the plants in scores—that we can only conclude that the farmers either lack energy or do not think the space it encroaches on as being of much value; for a boy sent in for half a day would soon level them to the ground and lay their beauty low. It may quickly be pulled up by hand, if only the operation be performed in moist weather; if any considerable fibres be left in the ground the roots strike again. All such plants as the rag-wort or the various species of thistle should, if not absolutely eradicated, be cut down before their seeds ripen and get dispersed over the whole country-side; and this is a particularly easy thing to do, as they can be attacked at most advantage when their golden or purple tufts of flowers render them most conspicuously visible. It has been suggested that the plant might be used for dyeing, but we are not aware that the matter has ever been put to the true test of experience. Many people conclude that if a plant has bright and showy red or yellow or blue flowers, that such plant should yield a good red, yellow, or blue dye; but the properties that make them valuable as tinctorial plants are rarely found in the blossoms, and some of the best vegetable dyes come from plants that have little outward beauty, while the dyes they yield do not agree in tint with the colour of their blossoms.

In some parts of the country the rag-wort is accredited with the power of preventing infection. When people visit any one who is suffering from any illness that may be transmitted, they carry with them into the sick-room a piece of the plant, and thus, as they believe, are preserved from taking the complaint, whatever it may be. Some little time ago we heard of a case of an old village woman who had adhered to the practice ever since she was a girl, and still preserved a robust faith in the herbal specific.

The plant is called rag-wort, or rag-weed, from its very finely divided and somewhat ragged-looking leaves, "wort," of course, being the old name for a plant; thus we find awl-wort, bladder-wort, butter-wort, lung-wort, and many other examples. The leaf-segments seem to be more numerous and finer in proportion to the dryness of the soil; a moist soil develops ranker-looking plants, but the foliage, though larger, is not so deeply divided and cut up. The plant is in various parts of the country known under the names of St. James's wort, segrum, or seggrum, stammer-wort, and stagger-wort, and in Wales and Ireland it is known under the somewhat lengthy titles of "carnedd felen wrryw" and "pfullan buih balkisan" respectively. The apostolic title is a relic of mediæval days; in old herbals it is the *Herba Sancti Jacobi*, or the *Sancti Jacobi flos*, and in France one of its names is the *Fleur de S. Jacques*. The Latin word *Jacobus* is the equivalent of the modern James. Parkinson, we see, names the plant the *Jacobæa vulgaris*. "Stammer-wort" would seem to indicate a belief in its efficacy as a remedy for impediment of speech, and the other old names all refer to its supposed value to the veterinary surgeon and cattle-doctor. In an old herbal we find it put down as "a certaine remedie to help the

Staggers in Horses ;” while for the diseases of humanity Culpepper tells us that “ Rag-wort is under the command of Dame Venus, and cleanseth, digesteth, and discusseth.” It is commended as a valuable remedy for sore throat, quinsy, catarrh, and the healing of wounds. It is also highly esteemed as a soothing application.

Entomologists will appreciate the rag-wort as the food-plant of the caterpillar of the beautiful cinnabar moth (*Callimorpha Jacobææ*), its second, or specific name, clearly testifying to its connection with our plant. The colour of the upper wings of the moth is a delicate brown, that bears on it a narrow crimson stripe and two crimson spots, and the hind wings are crimson throughout with a bordering of black. This beautiful moth is common and generally distributed in England, though in Scotland it is an entomological “find,” from its great rarity. The larva or caterpillar is slightly hairy, has a black head, and its body is black, ringed with orange-yellow. It should be looked for on the rag-wort during July and August, and will ordinarily be found in companies.

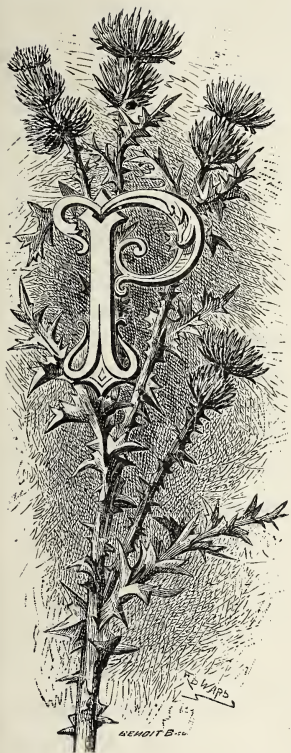




FIELD THISTLE.

THE FIELD THISTLE.

Carduus acanthoides. Nat. Ord.,
Compositæ.



ROBABLY most of our readers flatter themselves that they know a thistle when they see it; but it is our duty to break in on so complacent a feeling, with the assurance that the word thistle stands for a numerous body of plants. We have already figured the musk thistle or nodding thistle (*C. nutans*), and the spear-plume thistle (*C. lanceolatus*), and in addition to the present species (*C. acanthoides*) we propose to figure another common kind.

The field thistle may be looked for by waysides and on waste lands. It also springs up in the

farmer's fields; but it possesses one comparatively good feature, troublesome as it is, for, unlike the other species of thistle, it is an annual, and so far more readily eradicated. Like the other thistles, it sends its seeds flying far and wide on the breeze, and there can scarcely be a more hopeless sight for a careful farmer

than the thousands of seeds that settle down on his land, wafted by the winds from the neighbouring common, the railway embankment, or the fields of some more careless cultivator of the soil. War should be ruthlessly declared by the farmer on every thistle long before its ripened seeds are dispersed all over the country side. The dispersion of the seeds is an admirable and most interesting provision of nature for the propagation of the species, but were we agriculturalists we should regard the hoe or the reaping-hook as an admirable counter-provision. The particular thistle now before us is perhaps somewhat less abundant than some of the others, but this is only a comparative lack, for it is very freely to be met with almost everywhere over England and Ireland, though in Scotland it becomes less common. It is a curious fact that, though the thistle is the national emblem of Scotland, most of our ordinary English thistles, things that we find in almost every hedge-bank, and on every piece of waste soil, become much less common when we have crossed the border.

The painted lady butterfly (*Cynthia cardui*), a very generally distributed and gaily-coloured species, begins its career as a caterpillar on a thistle. The species favoured are the nodding thistle, the spear-plume, and the present one, the field thistle. The spiny caterpillar will be found during June and July. It is brown in colour, and has two yellow lines on its back, and one along each side. The perfect insect is somewhat uncertain in appearance, being some years very abundant, and in others comparatively rare. It is one of our larger species; the general ground-colour of the wings is orange-red, with various spots and mottlings of black, and at the tip of the front wings the black is enlivened by one large and four small white spots. The

under-surface is ashy-grey, lined and mottled with various delicate tints. This fine butterfly may be looked for at the end of July, and during August and September. It then hibernates, sheltered from the winter cold in the deep recesses of some barn or other cover, and reappears when the bright spring days come round. During the month of July the creature is in the chrysalis stage, and may be found suspended from the food-plants of the caterpillar. We have wandered thus far into somewhat of a digression because we have often seen this beautiful butterfly sunning itself with outstretched wings on the thistle-heads, and our readers may very probably see it as well, and will be glad to know something of its life history.

The field thistle is one of the taller species, from three to four feet high being a fair average. The stem branches freely, but as a whole preserves its erect character, as the lateral shoots do not diverge far. The leaves are narrow, cut up into numerous lobes, and very prickly. The stem is thickly clothed with those portions of the leaf that run for some distance down it, a kind of leaf-growth that is botanically termed decurrent. It is a very marked feature amongst the thistles, and we may see it again in the comfrey, and some other plants. The flower-heads are not very large, the ball-like mass from which they spring is thickly clothed with numerous and narrow spines, and the heads are often somewhat drooping. Like all the thistles, the flower may sometimes be found white instead of crimson.

Two distinct varieties of this thistle may be found: in one the flower-buds are somewhat larger than those we have figured, and they stand singly on long stalks, while the leaves are narrow, and almost free from woolliness or hairy

covering; in the other variety—the one we have illustrated—the flower-heads are smaller and clustered three or four together on short stalks, while the leaves are clothed beneath with a woolly or cotton-like covering. This latter variety has been by some botanists dignified with independent specific rank, and called *C. crispus*; but the two forms run so into each other, and exhibit so many intermediate stages, that it is impossible to recognise any real specific characters.

The meaning of the generic name *Carduus* we have already explained in our comments on the other species. The second name, *acanthoides*, is Greek in its origin, and signifies that the plant is like the acanthus, the resemblance being in the forms of the foliage. The acanthus leaf will be familiar to many of our readers from the great use made of it in Greek and Roman architecture, and in our modern reproductions of their Corinthian and composite capitals. Most undoubted thistle-flowers and foliage appear in a good deal of Gothic work. Examples may be seen at Evreux, Sens, and many other places abroad, and no less good illustrations at home in the fourteenth century-work in our own cathedrals. The field thistle is sometimes called the welshed thistle. In Wales it is the *Ysgallen grych*.





TUBEROUS PEA.

THE TUBEROUS PEA.

Orobus tuberosus. Nat. Ord.,
Leguminosæ.



WE have already given several illustrations of what the old writers call “peason and his kindes,” and the present species, though lacking the delicate beauty of the wood vetch, the rich purple clusters of the tufted vetch, or the graceful habit of the meadow vetchling—all plants we have already figured—has a quiet attractiveness of its own that, joined to its abundance, gives it full right to a place in our series. In Wales our plant rejoices in a somewhat long name, and is known as the “pysen y coed gnapwreiddiawg.” As we are acquainted with some half a dozen Welsh words only, we may, perhaps, be excused if we make the most of our knowledge, and hasten to explain that “coed” means a wood; this we learnt from a native of picturesque Bettws y coed: a name that, we are told, signifies the village in the wood. We may next make a happy guess, and assume that “pysen,” of the Welsh, means much the same thing as peason did in England in the Elizabethan era,

and, combining our knowledge and our assumption, we may affirm that the first three words are equivalent in meaning to wood pea. We have not, however, got half-way through the Cymric name yet, but for obvious reasons we now change the subject.

In Ireland the tuberous pea is the "carmel." The old Gaelic name for our plant is the "caermeal," and we find it still in the North called the corr, the carmylie, the cairmeil, or the cormeille; the similarity of these names to the Irish appellation is obvious and striking. The tuberous pea is often called the wood pea or the heath pea, and we shall throughout the rest of our remarks use any one of these terms indiscriminately, as the more distinctive term, tuberous, is somewhat long and cumbersome.

The wood pea may be searched for in copses and open spaces in woods or under sheltering hedgerows during May, June, and July. The root-stock is perennial, and consists largely of many small black tubers and a few fibres; these tubers are edible. "The nuts of this pease being boyled and eaten are hardlier digested than be either turnips or parsneps, yet do they nourish no less than the parsnep;" but one good parsnip, as far as bulk is concerned, would cut up into a hundred or more of these tubers of the wood pea, so that ordinarily they can surely scarcely have paid for the trouble of digging up. Bryant, in his "Flora Dietetica," writes as follows of the tuberous pea:—"The roots of this, when boiled, are said to be nutritious. They are held in great esteem by the Scotch Highlanders, who chew them as we do tobacco, and thus often make a meal of them; for being of a sedative nature, they pall the appetite and allay the sensation of hunger." This caermeil, as the Highlanders call it, is supposed to be the "chara" referred to by Cæsar

in his "History of the Gallic War," and is probably the same as that referred to by another Roman historian as furnishing, when mixed with milk, a sufficient sustenance for a time, when the army of Valerius outran their commissariat department. The Scottish mountaineers grind these tubers into a kind of flour for bread-making purposes in time of dearth, and prepare an intoxicating drink from them; they also believe that they are efficacious for lung affections. This lowly plant is, therefore, at once meat, drink, and medicine, though it is doubtful whether it fulfils any of these functions very satisfactorily: in the same way that when we buy a penknife that is also a measure, a file, a corkscrew, a punch, and has some few other uses, we discern that its efficiency in any one of these modifications is, after all, not great, and that, on the whole, we should have done better to have got any one of these things unencumbered with the rest. A weapon that aspires to be at once bayonet and saw, a tool that professes to be at once axe and hammer, ends in being neither in any efficient degree.

The generic name of the wood pea, *Orobus*, is uncertain in its significance, but it has been suggested that it is derived from two Greek words signifying an ox and to strengthen, on account of its yielding food to cattle. Whether it ever does to any appreciable extent furnish provender to cattle is a very doubtful point, as the situations in which it thrives best are scarcely those in which we can expect to find stock at all. It is, at all events, no more a strengthener of the ox, we should think, than some fifty other plants that receive an occasional bite as they spring up by the hedgerow or skirt the copse. The foliage of this plant is a good deal eaten by some grub or insect of a species unknown to us, so that it is very difficult to find a piece unmutilated.

We have indicated this in the lowest leaf in our sketch. In a drawing it is easy enough to remove all trace of these depredations and to restore the broken outline, but when one desires to find a good specimen for pressing, drying, and preserving, the case is altered. Dried plants, though of great scientific value, are generally poor relics of departed beauty, and this is the case with this plant especially, as it seems impossible to prevent it from drying a dull black or a dismal brown. In some parts of the country the heath pea is called the nipper-nut, a very meaningless-looking name on the face of it; but when we also find it called nappart, we see that, like the knapweed, some knob-like part of the plant has caused the name to be employed. In the present plant the tubers have given it the name of knob-wort, or knap-wort, or nappart, and so by a further corruption from the original idea we at length arrive at nipper-nut.





RED BARTSIA.

RED BARTSIA.

Bartsia Odontites. Nat. Ord.,
Scrophulariaceæ.



THE red bartsia is too common a plant almost everywhere to be overlooked, though as Curtis, in his "*Flora Londinensis*," says, "it is not remarked either for its beauty or utility." It is not a brilliant or attractive plant, and will probably rarely find itself in the floral posy of the wayside stroller, being ordinarily either completely overlooked, or else held not fit company for its gayer contemporaries. At the same time, as it is abundant by the roadside, on rubbish-heaps, and

in corn-fields, we may not here pass it by, and more especially as we may hope that our labours, to those who are interested in them, may have led to a closer scanning of the country-side, and those who overlooked the bartsia before may now turn to our pages for information respecting it.

The plant differs a good deal in size according to the place in which it grows, though except in mere bulk the

bartsia seems less subject to variation than many other species. Amongst the standing corn it may be a foot or more in height, while by the side of the dusty road we see it flowering gallantly under harder conditions, and not more perhaps than four or five inches high. It is sometimes found with white blossoms, a colour-variation which, as we have often seen in the case of other flowers, is by no means rare. One marked variety of the plant has been found in which all the parts are rounder and more richly developed, and this has by some botanists been raised to the rank of a distinct species; but there seems small justification for this, as there is but little doubt that the forms are simply the result of more favourable conditions of growth, and that the plant does not differ in any essential points from the accepted type. In corn-fields, and when growing on fairly good ground, the stems and leaves are often greener and more succulent-looking than those that have a harder fight for existence. The roadside plants are frequently almost entirely purplish-red in colour, and this, added to the dust and dirt of the highway settling on them, gives them an appearance that is graphically described in the term brownweed, one of the provincial names of the bartsia. The plant, whatever its colour, bulk, or position and station in life, has, as we have said, a strong family likeness running through all the examples, and its identification under any circumstances is by no means difficult. The bartsia is an annual, and should be looked for during June, July, and August, the months when its flowers are developed.

When we go a little more into detail, and analyse the structure of the plant, we find that its root is very

fibrous and woody, while the stems boldly shoot up from it. These stems branch a good deal laterally, and always in pairs; they are in section somewhat squarish, or a form that may be explained as a square with more or less rounding of its corners, and are very often somewhat hairy. The leaves, of which only one true pair is shown in our drawing, are in pairs on the stem. The other foliate forms in our sketch are the floral leaves, and these are often in many plants more or less irregular in arrangement, even when the stem-leaves follow a rigid law. This is the case in the present plant; the alternate and somewhat irregular arrangement of the flower-leaves is at variance with the regular pairing off of the lower and stem-leaves. The leaves, it will be seen, are stalkless and lanceolate, and have their margins cut into a few large teeth. Their surfaces are often hairy, and the veins, though few in number, are conspicuously marked. The flowers grow in long spikes, all on each spike being turned in one general direction. We almost invariably find that these spikes nod or bend a little at the top, a perfectly natural arrangement, though it suggests the idea that the piece we have gathered is drooping, and needs the refreshing influence of a vaseful of water. The flowers individually are of the usual scrophularious and irregular type, and are divided into two very distinct lips; the upper one is convex, or dome-shaped, and very simple in form, while the lower one is cut into three very distinct and fairly equal segments. These lips are very widely distended on the full expansion of the blossom. The calyx is tubular, and at its summit cleft into four parts, often hairy. In colour it is generally a deeper, duller shade of red than the corolla. The stamens are four in number, and arranged in

two pairs, one pair being provided with rather longer filaments than the other. The style is filiform, or thread-like, and terminates in a small and inconspicuous stigma. The capsule is of a rounded, oblong character, and is divisible into two cells, each containing several small whitish seeds. The bartsia is very closely allied to the eye-bright, the *Euphrasia officinalis*, another very common plant, and was therefore by many of the older herbalists called the red-flowered eye-bright; while it is in some respects not unlike the cow-wheat (*Melampyrum pratense*), a plant we figured in the previous volume, so that some mediæval writers, to be quite upon the safe side, gave it the long compound name of eye-bright-cow-wheat, and almost all these ancient authorities classify it botanically as the Euphrasia. Linnæus himself, though he afterwards made a new genus, Bartsia, for its reception, called it Euphrasia in his "Systema Vegetabilium," published in 1784, as he had previously done in his "Flora Suecica," a book that appeared in the year 1755. The bartsia was so called by the great Swede after his friend Dr. Johann Bartsch, of Königsberg.





MILK THISTLE.

THE MILK THISTLE.

Carduus Marianus. Nat.

Ord. Compositæ.



EW of our native plants are more striking in appearance than a good specimen of this plant. The beautiful milk-white veins spread thickly on every leaf, the size of the leaves themselves, and the grandeur of the whole growth are points that must appeal to all beholders who have any eye at all for natural beauty, and few plants may more appropriately be transferred from the wild state to the beds of the flower-garden. It takes up a great deal of room, but where a garden affords plenty of space this is anything

but a drawback, as it is a very noble-looking plant. It is possible, however, that the gardener might object to the free way in which the seed gets dispersed everywhere, and we know by our own experience that one consequence of introducing it is the necessity of freely weeding out the superfluous seedlings that spring up all over the garden. After all, however, they do not give anything

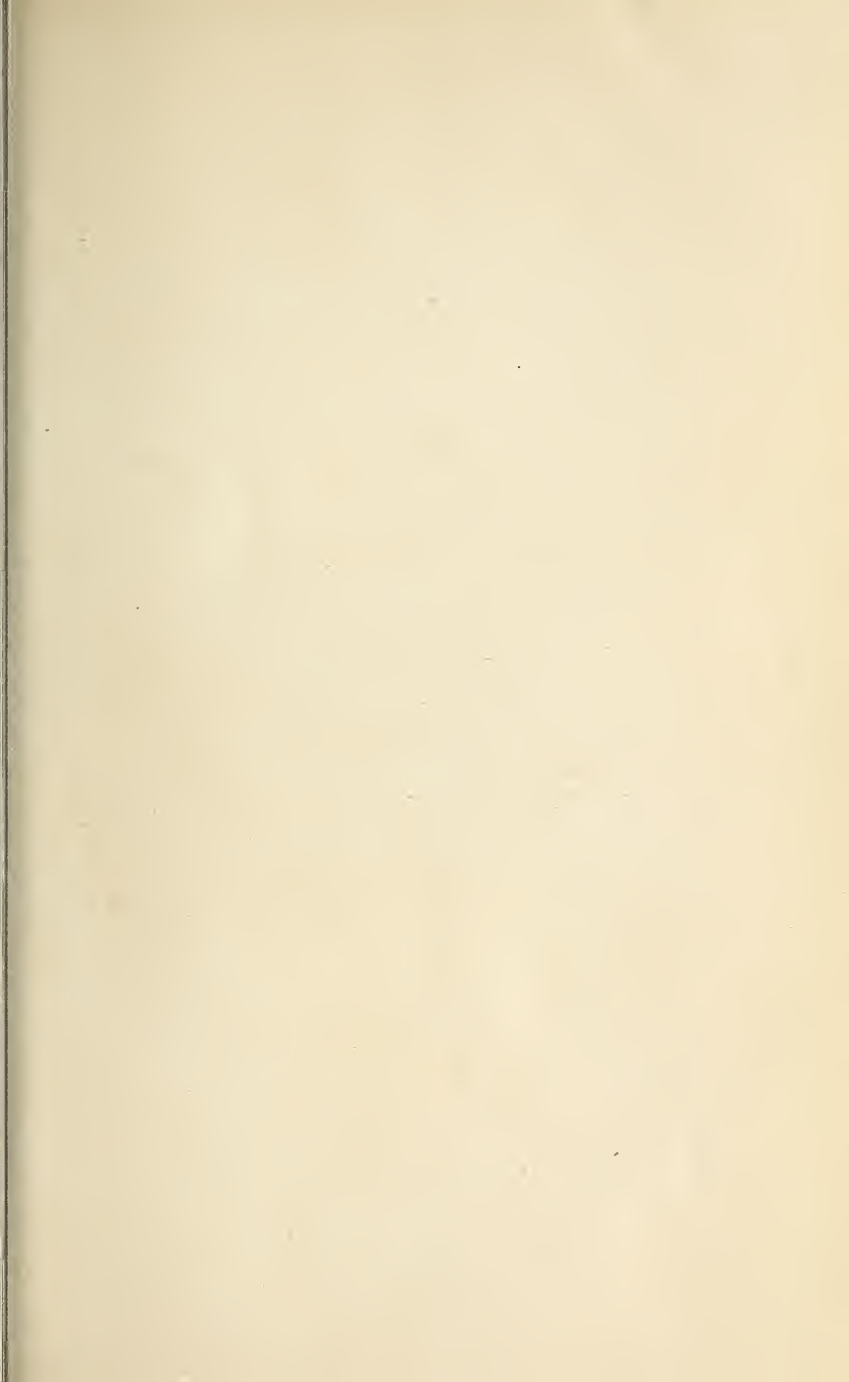
like the trouble that groundsel and many other garden-loving interlopers do, and the toil of a little preliminary hoeing is soon forgotten when the plants destined to be preserved are revealing themselves in all their beauty. The plant is a biennial, and should be looked for in hedges, banks, and on rubbish-heaps. It flowers during June and July; but the flowers, effective as they are, are not the crowning glory of the plant. The stalks of the milk-thistle are ordinarily from four to five feet high, though we have sometimes seen them over six feet in height. The lower part is often downy and groovy, the upper part smooth and finely channelled. The leaves near the root are boldly spread out into a great rosette, each leaf being a couple of feet or so in length, and deeply cut into broad and very prickly-margined lobes. The upper surface is very smooth and glossy, and marked all over with a broad network of white veins. It is impossible to even suggest the beauty of the appearance in the very limited space our plate affords; for we can but give an inch or two of the tip of one of these grand leaves—as hopeless a proceeding almost as that of the man in classic story who carried about a brick to give people an idea of his house. Occasionally the leaves are wholly green, and it then becomes necessary to avail ourselves of some other means of identification, none being more efficacious than the strong spiny head from which the blossoms emerge. The upper leaves are very much smaller, and clasp the stem tightly by the broad lobes at their bases; they are generally boldly bent back from the stems. The flower-heads are large, and of a rich crimsonish purple, while the florèts are of the usual character we find in the thistle family. The scales of the involucre are foliaceous in character, and are armed with

formidable prickles, and after the flowering season is over the place of the florets is taken by the head of white down that rises from the seeds below, and that forms so marked a feature in the various kinds of thistles—a feature that is interesting in itself, and most efficacious in securing the distribution of the seeds. These seeds are numerous, blackish and shining, each being crowned with a tuft of stiffish down. They contain a certain quantity of oil, and have therefore been sometimes used in rural medicine; but their principal service, after the necessity of obtaining a supply of the plant, seems to be to provide a welcome repast for the goldfinch and several other grain and seed eating birds.

Besides the use of the seeds in emulsions, and the beauty of the plant when transferred to the garden, we are told that it may be eaten when young as a salad, though this is a statement that we should rather demur to, as even in their youngest seedling state they have an aggressive and well-armed look that would send one off to the lettuces in preference. We are also given to understand that the young stalks, peeled and soaked to take off a little bitterness that cannot quite be ignored, are excellent, either boiled as a table vegetable, or baked in pies like rubarb-stalks. This may be so, but it brings at once to our mind a similar statement as to the culinary virtues of the common stinging-nettle. We had read that stinging-nettle leaves made an excellent table vegetable, so we one day determined to try them, as any quantity of them were springing up around our orchard. They were duly prepared, and everybody said the kindest things they could for them; but—we never had them again. The subject was tacitly dropped, and we returned in all true allegiance

to our kitchen-garden. Pliny tells us "It is not thought worth while to boil it, the cooking of it being so exceedingly troublesome, it is said." This leaves us in a very vague state of mind as to whether the people who disliked the trouble of cooking it discarded it in consequence or ate it raw. If we may at all judge their feelings by our own they probably adopted the former course. Culpepper says of the milk-thistle, "It cleanseth the blood exceedingly; and in spring, if you please to boil the tender plant (but cut off the prickles unless you have a mind to choak yourself), it will change your blood as the season changeth, and that is the way to be safe." Westmacott, too, writing in the year 1694, thus sings its praises and laments "the good old times":—"It is a Friend to the Liver and Blood: the Prickles cut off, they were formerly used to be boiled in the Spring and eaten with other Herbs; but as the World decays, so doth the Use of good old things, and others more delicate and less virtuous brought in."







HEDGE STACHYS.



HEDGE STACHYS.

Stachys sylvatica. Nat. Ord., Labiatae.

EW country journeys in search of wild flowers will fail to supply us with examples of the hedge stachys, for it occurs abundantly almost everywhere, though its somewhat sombre blossoms do not court attention. When carefully examined, however, the motling and variegation of colour seen in them well repays investigation. The hedge stachys should be looked for in June, July, and August, and almost any shady hedge-bank or copse-side will yield us examples of it. It seems to prefer situations that are a little shaded from the direct rays of the sun, the shelter and the damp being both

favourable to it. The plant would possibly be a greater favourite if it had not quite so strong an odour, for though some persons do not dislike it, many object to it, and more especially when the stem or leaves have got at all bruised. This powerful smell, added to the rather dull colour of its head of flowers, ordinarily banishes it from the rustic nose-gay; and those who only gather the more attractive

blossoms are very likely to completely overlook the purple spike of the stachys. At the same time, these purple flower-heads, sombre as they are, have a quiet beauty of their own, and serve to light up many a shady recess in the cover-side. All cannot be equally attractive and prominent, and the stachys fills its lowly place as well in its degree as any of its more brilliantly-attired brethren.

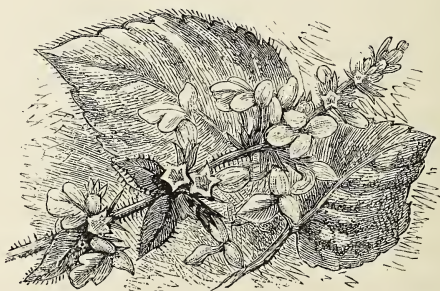
It seems to have been a matter of some difficulty for our plant to settle down into its true botanical position and relationship. Haller classed it as a *Cardiaca*, and Ray and several other botanists put it in the genus *Galeopsis*, or the hemp-nettles. The genus in which it is now placed derives its name from the Greek word for a spike or ear of corn, a name given from the general upright and spicate character of the inflorescence of the plants in the genus. The specific name clearly indicates the sylvan shades in which the plant should be sought; another species is the *S. palustris*, or marsh stachys, and a third the *S. arvensis*, or stachys of the fields.

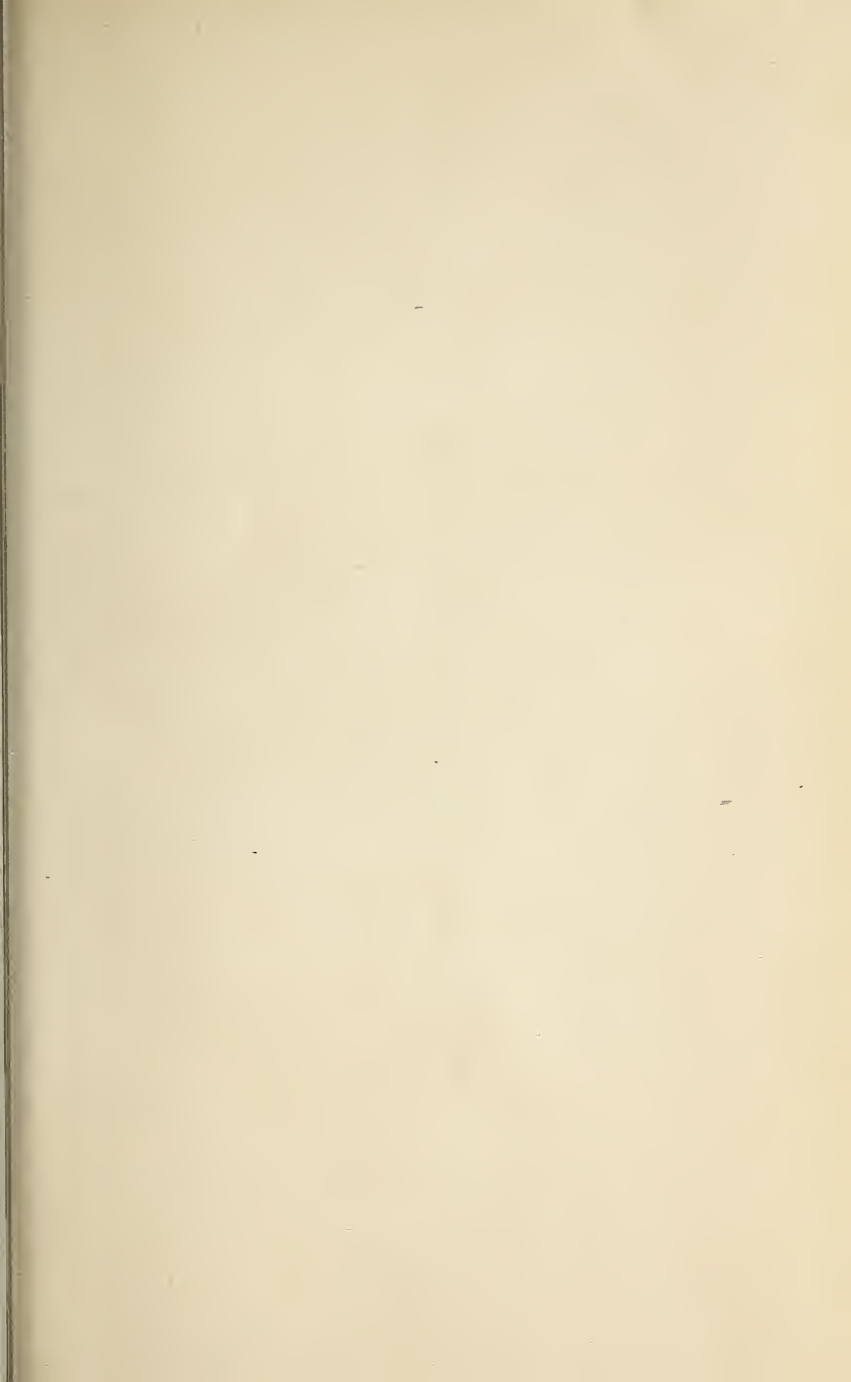
The root-stock of the hedge stachys is perennial, and throws off numerous creeping scions. The stem is upright, and rises to a height of some two or three feet. Like most of the labiates, it is quadrangular, but its interior, instead of being hollow, is filled with pith. The stem branches a good deal, though the generally upright character of the plant is preserved, and it is in most specimens very hairy, and often more or less red in colour. The branches are very similar in character to the main stalk, and issue from it in pairs, placed opposite to each other. The general effect of the whole plant is coarse and hairy. The leaves are clothed with hairs, both on their upper and under surfaces. The form of the foliage

is very characteristically heart-shaped: each leaf is supported on a stem about equal in length to it, the outlines are deeply notched, and the leaves are thrown off from the stems in pairs, each pair being at right angles to the pairs above and below it. The flowers grow in rings upon the stem, each ring being separated from the other by an intervening space of stem, and the whole forming a long terminal spike. The number of flowers in each ring is variable, but half a dozen would be about the normal state of things, and below each ring are its floral leaves. The flowers are of the ordinary labiate type, such as we find in the red dead-nettle, ground-ivy, bugle, and other flowers of the order that we have figured in our series. The lower lip of the flower is entire, beautifully variegated with white upon the crimson-purple ground, and having its sides folded back. The upper lip is also entire, and very convex, slightly viscid to the touch. The stamens, four in number, will be found beneath the protecting hood made by the upper part of the flower. Two of the filaments are rather larger than the others, and the anthers are in the opening flower of a dull violet colour, afterwards changing to black; the pollen upon them is almost pure white. The calyx has ten prominent ribs, is somewhat bell-shaped, terminates in five spreading teeth, of which the upper one slightly exceeds the others in length, is rough to the touch, and is of a dull reddish-purple colour. The seeds that succeed each flower are four in number. The strong odour of the plant seems to render it generally unpopular, and few animals, if any, touch it.

The plant is sometimes called the hedge wound-wort, but merely to distinguish it from the true wound-wort, or *Stachys Germanica*, a plant that occasionally occurs in

England, and more particularly on limestone, but is by no means common. Its leaves have a dense covering of silky hair, and were at one time, in rustic surgery, employed in the place of lint for dressing wounds. The plant is a very common one on the Continent, and our native herbalists doubtless desired, if possible, to find similar virtues in an allied and more common British plant; and we are told many ways of applying the hedge stachys in the healing arts. One authority tells us that this plant, "stamped with vinegar and applied in manner of a pultis, taketh away wens and hard swellings, and inflammations of the kernels under the eares and iawes;" and it would appear to affect the mind no less powerfully than the body, for we are told that the distilled water of the flowers "is vsed to make the heart merry, to make a good colour in the face, and to make the vitall spirits more fresh and liuely." It is "singular commended" by many other old writers, but into their precepts and practice in the matter our limited space altogether forbids us to go.



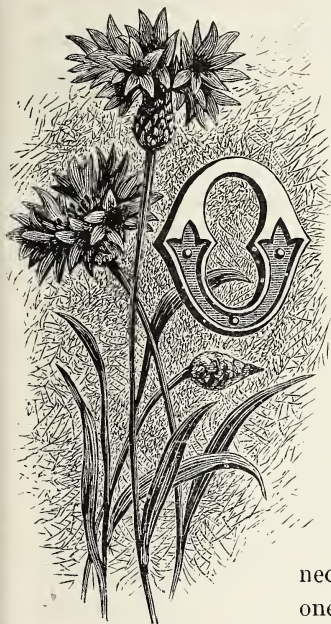




CORN BLUE-BOTTLE.

CORN-FLOWER, OR CORN BLUE-BOTTLE.

Centaurea Cyanus. Nat. Ord.,
Compositæ.



UR present plant forms one of the brilliant trio that gives such splendour of colour to the harvest-field, the golden marigold being another, and the scarlet poppy the third; and nowhere else do we find the three pure primary colours, the blue, the scarlet, and the yellow, in such intensity. Each of the plants we have named carries with it its connection with the harvest-field; for one is the corn-marigold, the other is the corn-poppy, or corn-rose,

while the subject of our present illustration is called in an especial degree the corn-flower. The marigold will at times appear amongst other crops, and all who have seen the railway embankments ablaze with poppies will not need to be told that these, too, sometimes wander from their allegiance to Ceres; but the blue-bottle will very rarely be found away from the golden grain, and but few corn-fields would fail to yield examples of it. Throughout temperate Europe it is always found in such localities, but in the

hotter regions of the extreme south—in Sicily, for example—it deserts the plains, and must be looked for on the high-lying pastures of the mountain-sides.

Few plants are more hardy than the corn-flower, as its seedlings, which come up abundantly in the autumn, brave the severest frosts. The flowers are of the compound character with which we are familiar in the Composite order; the florets of the disk are small, purple, and numerous, while the outer radiating florets, that form the conspicuous beauty of the flower, are fewer in number, but much larger, widely spread, and of a brilliant blue tint. The anthers, five in number, of the central florets, form a cylindrical tube somewhat longer than the corolla whence they emerge, and form a noticeable feature. The ovoid involucre from which the flower-head springs was by old writers supposed to sufficiently resemble a flask to justify them in calling the plant the blue-bottle. It is covered by numerous tightly-compressed scales, each bordered by a margin or fringing of brown teeth. The flowers are scentless. The plant varies considerably in height, but about two feet might be considered a very fairly typical size; the general character of the plant is upright; the stems that are thrown off leave the central stalk at a slight angle, and preserve the general upright direction and effect. The flower-heads grow singly at the ends of these long stems. The stems are somewhat angular, and covered with a loose cottony down; their tough, wiry character will be at once appreciated by any one who may attempt to gather the azure coronals they bear at their summits, a considerable amount of bending, twisting, and tugging being necessary before they can be induced to part company. The upper leaves are arranged alternately on the stalk, and are very long as compared with

their breadth ; like the stems, they are covered with more or less of the white cobwebby down that gives the whole plant a somewhat dull and grey appearance. The lower leaves are much broader and blunter-looking than the upper, and often have a roughly-toothed or jagged outline, a feature which we do not find in the leaves that, from their higher position on the plant, more readily attract notice.

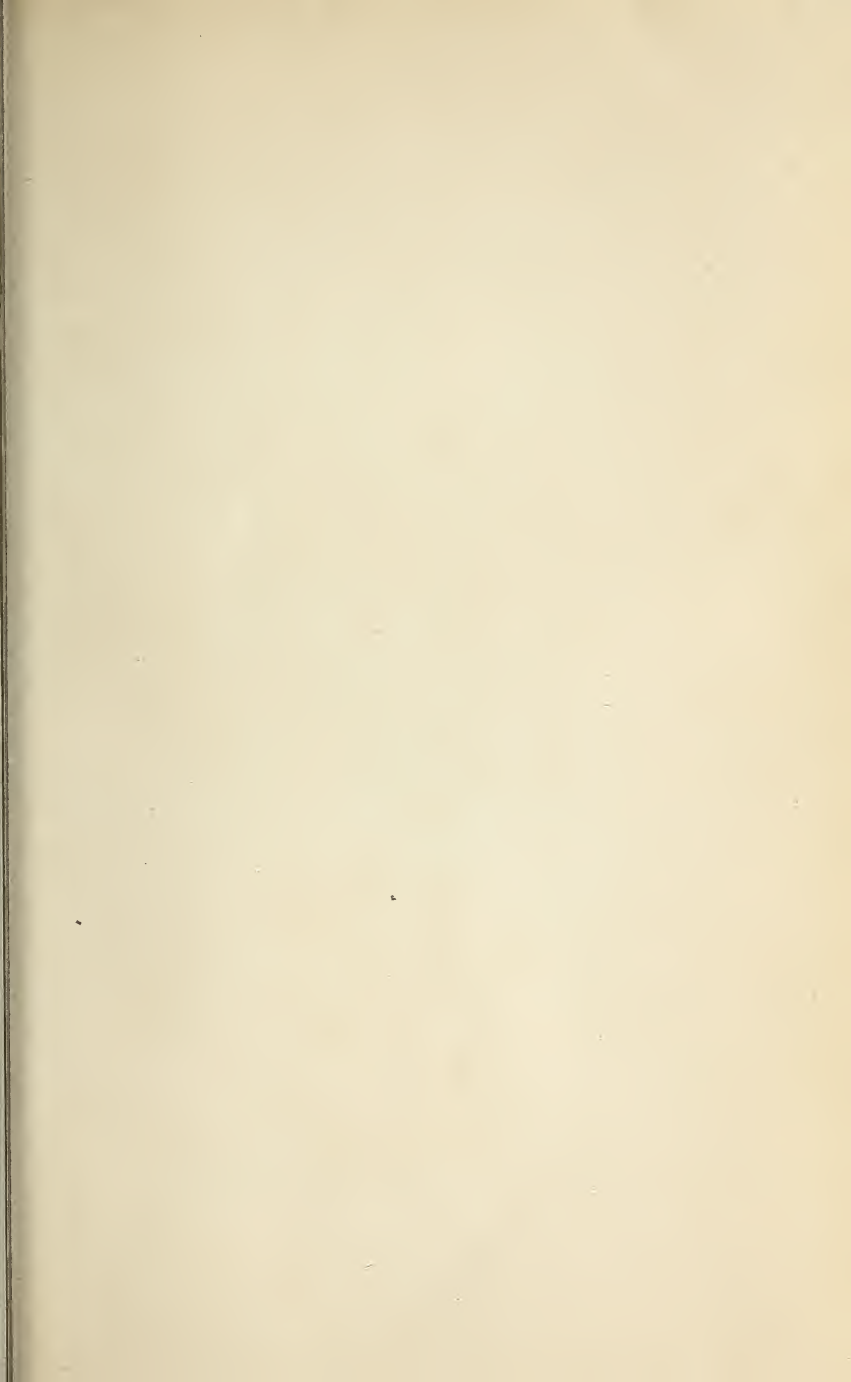
Though the brilliancy of its flowers makes it an attractive plant to the lover of natural beauty, the farmer regards the corn-flower as a pernicious weed to be carefully eradicated at sight ; and the reapers bear it no goodwill, for its tough stems blunt their sickles ; hence by many old writers the plant is called the “ hurt-sickle.” On this point the poet discourses feelingly, in the following scathing lines :—

“ Blue-bottle, thee my numbers fain would raise,
And thy complexion challenges my praise ;
Thy countenance, like summer skies, is fair ;
But, ah ! how different thy vile manners are.
Ceres for this excludes thee from my song,
And swains, to gods and me a sacred throng.
A treach’rous guest, destruction thou dost bring
To th’ inhospitable field where thou dost spring.
Thou blunt’st the very reaper’s sickle, and so
In life and death becom’st the farmer’s foe.”

The corn-flower would appear to injure the farmer not only materially, but morally, for its presence convicts him of negligence, and holds him up to public gaze for his want of energy. Holditch, an old writer, in his “ Essay on Weeds,” includes this plant in his denunciation of the poppy, the May-weed, and the marigold, and says : “ The above class, with their gaudy colours, proclaim bad farming to the landlord, the tenant, and the passenger, and announce the neglect of using clean seed-corn, judicious fallowing,

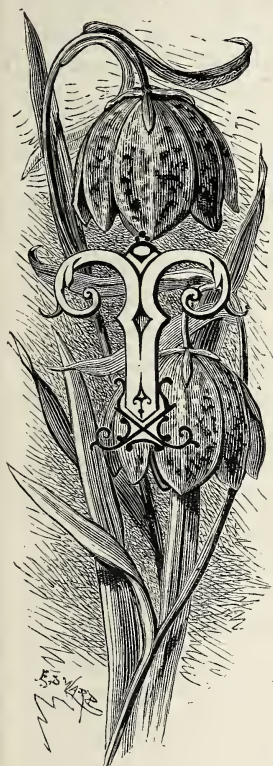
and horse-hoe husbandry." It is sometimes called "blue-bonnet" or "blue-cap" provincially, and in Scotland it is the "blawort." The Irish peasant calls it "gormon," the Welshman the "crammenog yr yd." In Germany its name is similar to our best-known English name—it is the "korn-blume," while in France it is known as the "blavelle," "blaverolle," or "bluet." In Italy its name has the same signification as the English name hurt-sickle. By some mediæval writers it is termed the *Flos frumentorum*—*frumentum* being the Latin word for corn. The meaning of the generic name we have already dwelt on, when speaking of the knapweed, another plant of the genus. The specific name, *cyanus*, is Greek in its origin, and refers to its beautiful colour. We also find a classical myth of one Cyanus, a devotee of Flora, and admirer in a general way of familiar wild flowers, whose chief occupation seems to have been to weave for the goddess garlands of this and other corn-flowers. Bauhin called our plant the *Cyanus segetum*, the "blue-flower that appears in the corn-fields," a sufficiently appropriate name.







FRITILLARY.



FRITILLARY.

Fritillaria meleagris. Nat. Ord., *Liliaceæ*.

THE fritillary is an exceedingly local plant, so that one may be noticing flowers for years and yet never have entered a district in which the subject of our illustration is found. Where it occurs, however, it is ordinarily in profusion, and comes up year after year. The fritillary springs up in moist meadows and pasture-land, and more rarely in the open glades of woods. It is found in various parts of England, but chiefly in the south and east; we do not hear of its occurring in either Scotland or Ireland. It flowers during the month of April,

and only lasts for a short time. Curtis, in his "*Flora Londinensis*," mentions it as one of the plants found in the vicinity of the metropolis, giving as localities the meadows between Mortlake and Kew in the west, and similar situations round Enfield to the north of London, and again, to the south-east, in a wood at Bromley, in Kent. Blackstone, an earlier writer, incidentally mentions that it had been observed for

over sixty years growing plentifully near Roslip Common, in Middlesex; and Cullum, a contemporary, speaks of its growing in similar abundance around Bury St. Edmunds. It is also reported from several localities in Surrey and Sussex, and in one of the scientific periodicals we find a writer stating, "Found by me abundantly on an island in the Tame, near Tamworth, Staffordshire; and by a friend, in still greater profusion, in the damp meadows at Oxford, on the banks of the Isis." We hear of it in this way in various directions, and as whenever it occurs it is always recorded as being in abundance and covering a large area of ground, it may, we think, rightfully be included in our series, a point being perhaps additionally strained in its favour on account of its quaint singularity. One of our old authors, in speaking of it, says, "Of the facultie of these pleasant floures there is nothing set doune in the antient or later Writers, but are greatly esteemed for the beautifying of our gardens and the bosoms of the beautifull." A plant that has no "vertues" is itself a great singularity, and when almost everything was turned to some more or less practical use, based on some more or less recondite reasoning, we wonder greatly that this plant, which is also called snake's-head, was not an antidote for the biting of venomous serpents or some such perils and mischances. The name snake's-head does not strike one as being especially appropriate on an inspection of our illustration; but any one who has seen the plant before the blossoms are expanded will at once notice the resemblance between a snake's head and the bud of the plant, its form and colour being alike very suggestive of it.

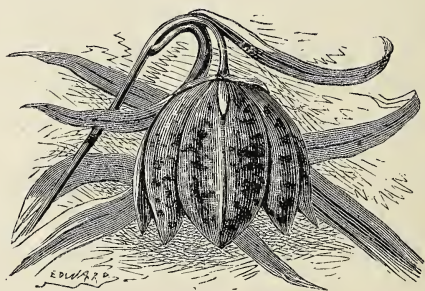
The root of the fritillary is bulbous in character. It is about as large as a hazel-nut, solid, white, roundish, and

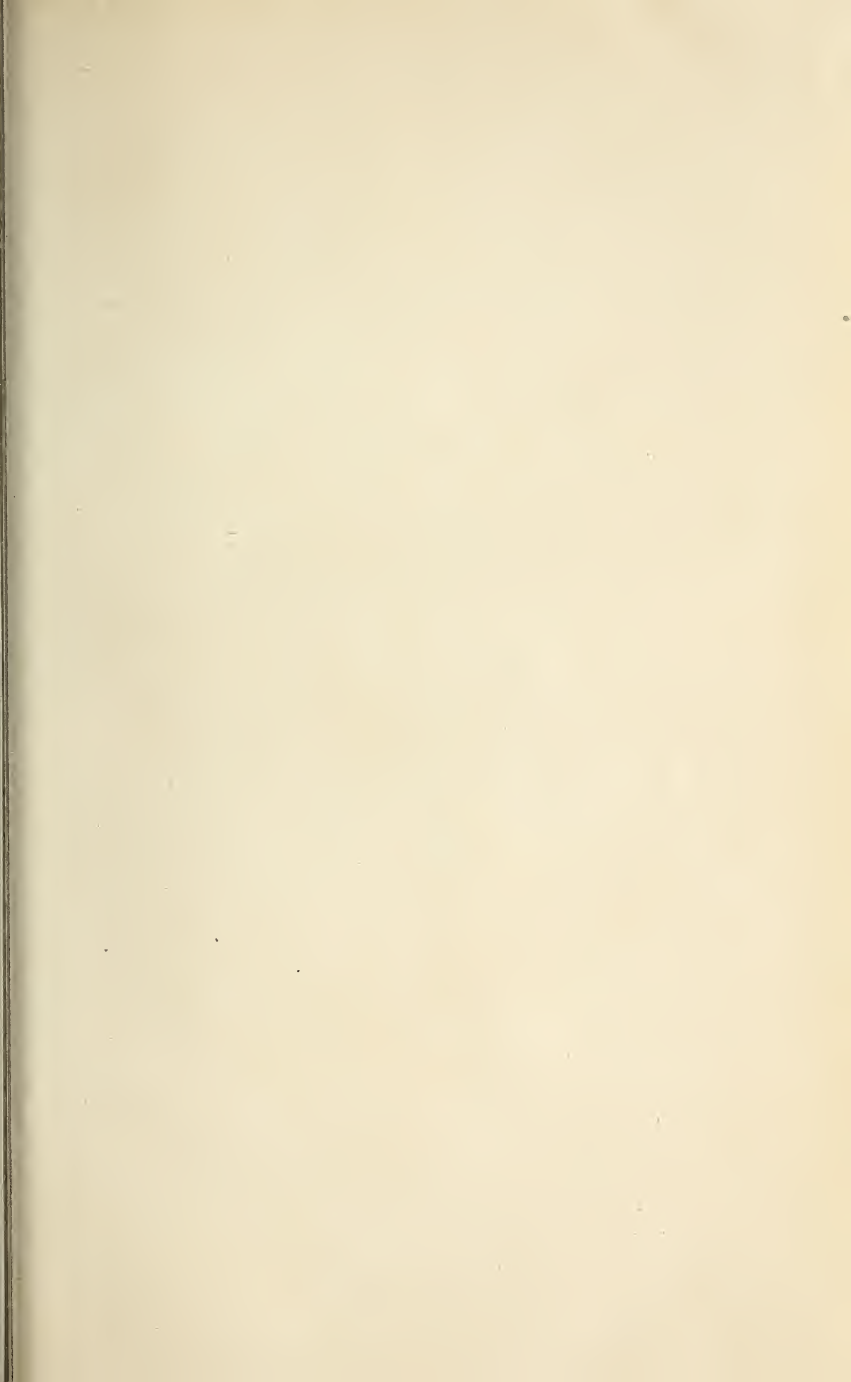
enclosed as in a case by the withered and wrinkled bulb of the preceding year. It is a particularly easy plant to grow in one's own garden, only we must warn all who would attempt it that bulbs have many enemies, and it is very possible that mice or some other small foes may prepare a disappointment. The stalk of the fritillary is about a foot in height, upright, often purplish in colour, and bearing some three or four leaves arranged in an alternate manner along it, and terminating in a flower. The leaves partly embrace the stem, and are, as our illustration shows, long and slender. The single flower that each stem bears is of a graceful bell form, pendulous, composed of six equal segments, and at the base of each will be found inside a hollow space or nectary: this on the outside gives the curious raised and angular look that we see on the flower near its attachment to the stem. The flower is subject to a very considerable variation in colour, but the one we have figured is a very fairly typical specimen. The curious square chequerings will at once be noticed. Wherever it is met with one may expect to find one or two specimens having white flowers, as this is a particularly common form of variation. More rarely the characteristic chequering is replaced by purplish blotches on a yellowish green ground; it has a livid and uncanny effect. We have ourselves seen both these variations, but the typical form is the most quaintly pleasing.

The old herbals often have very elaborate and allegorical woodcuts as frontispieces, and that of the "*Rariorum Plantarum Historia*" of Clusius, now before us as we write, is no exception. The book was published at Antwerp in the year 1601. We have Adam on one side, in the simplicity of costume of Eden's earliest days, and on the

other Solomon, with crown and royal robes and sceptre, bearing in his hands a book. Adam is claimed by the mediæval herbalists as not only a tiller of the ground but a student of botanical science, while Solomon, we all remember, wrote a treatise that dealt with plants, from the lordly cedar to the lowly hyssop of the wall. Above Adam, in a pot, is a Turk's-cap lily, and by his side is the fritillary, while Solomon has associated with him the cyclamen and the crown imperial.

The name *Fritillaria* is from the Latin *fritillus*, a dice-box, the chequered arrangement of the colours of the flower suggesting the board used in an old game. "It was called of the Greekes and Latines *Flos meleagris*, as a difference from a kinde of birde called also *Meleagris*, whose feathers be speckled lyke unto these floures, but not with violet speckes, but with white and blacke spots, lyke to the feathers of the Turkis or Ginny hen." This bird is the *Numidia meleagris*, or Guinea-fowl. The plant is sometimes called erroneously the wild tulip—another species altogether.







WATER FIG-WORT.



WATER FIG-WORT.

Scrophularia aquatica. Nat. Ord.,
Scrophulariaceæ.

HEREVER we find a river, weed-bordered pool, or water-course of any kind, there we may fairly hope to find the plant here figured, though, as it has little to commend it, when we compare it with its fellows, the forget-me-not, the water-lily, the flowering rush, or the purple loose-strife, it, no doubt, ordinarily gets overlooked. The blossoms have a lurid colour and fantastic shape, that give the plant a somewhat weird and uncanny look, and one finds it difficult to imagine that any one could

even have thought it a remedy for any of the ills of life, though its generic name is a sufficient indication that it has in the past been so held. Curtis, in his "Flora Londinensis," admits that the plant in its wild state has little to commend it as an ornamental plant, but he adds that when variegated few exceed it in beauty. He further tells us that in this state it was in his

day not uncommon in the nurseries about the metropolis. What the degree of variegation was he does not inform us, or whether it consisted of a mottling of the leaves or a change in the colour of the flowers; but the whole habit of the plant is so spare, and the flowers so minute in proportion to the plant as a whole, that any possible modification could scarcely hold its own amongst gayer plants, and the necessity of planting it in a very moist soil would tell still further against its general usefulness as a plant of the flower-border. Even in a wild state the dull dark purple of the flowers is sometimes changed into white, a modification that almost all red or purple flowers are subject to, as we may see in the bugle, hyacinth, meadow crane's-bill, and many other plants. Cattle do not seem to care for the plant, and its leaves have a decidedly disagreeable smell when bruised; but the bees are very partial to its sombre flowers, and the larvæ of some few species of moths feed on its foliage—a proceeding that tends possibly to its utility in the grand scheme of Nature, but which certainly does not add to its beauty. We almost invariably find the leaves more or less eaten by these caterpillars.

The root of the water fig-wort is perennial, and throws out numerous large fibres. The plant varies much in size, but a height of five feet would be a fairly typical measurement, though at times we find the plants more nearly approaching eight. The general character of the stem is distinctly upright, though from the rigid straight line of the main stem smaller lateral branches are thrown out. In texture the stem is smooth, a feature observable in most water plants, and when cut across the section, is seen to be four-sided, the angles being strongly developed. The stems are often more or less strongly reddish-purple in

colour. The leaves are placed in pairs on the stem, each succeeding pair being at right angles with the pair below it; all are on foot-stalks, and each pair is ordinarily separated by some considerable interval of bare stem from its neighbours. In form the leaves are somewhat heart-shaped, but often more oblong than those we have figured, and the veining is very conspicuous. Hooker truly says that they are "crenate-serrate, cordate-oblong, obtuse," and we leave this statement in all its simplicity, unmarred by any explanations of our own, to the consideration of our readers. The flowers are terminal, and surmount the whole; the inflorescence is paniculate, and at each branching we find a little floral leaf, or bract. The calyx has five conspicuous lobes, and these are fringed by a rather ragged-looking brown membranous border. The corolla is almost globular, the lobes at its mouth being very short and broad; the two upper ones stand boldly out from the flower; the two lateral ones take the same general direction as the upper, but are much shorter; and the fifth is turned sharply downwards. There are four anther-bearing stamens, and ordinarily a fifth and barren one beneath the upper lip of the corolla. After the flowering is over we find the roundish capsules each containing numerous small brown seeds.

The water fig-wort is sometimes called the water betony, a name at one time the more common of the two. It was bestowed upon it from the resemblance of its leaves to the wood betony, but as it differs entirely from that plant in every other respect, the name may well be allowed to drop. The name fig-wort is derived from the form of the root in one of the species of *Scrophularia*. The *S. nodosa*, or knotted fig-wort, the species in question, is a fairly common plant. It derives its name from its thick and knotty roots,

the short stock giving forth a number of small tubers. The knotted fig-wort much resembles in its general habit the plant we have figured, though an inspection of the two together would sufficiently illustrate their specific distinction. Its leaves are much more acutely heart-shaped than those of the water fig-wort, and the calyx has only a very narrow margin to the lobes. The stem, too, has not the decided projections at its angles that we see in the plant more especially before us; and the plant, though found in rather moist, cultivated, or waste ground, and in damp woods, is not distinctly an aquatic, like the water fig-wort.

The water fig-wort varies so far in foliage and other respects that a variety called the *S. Ehrharti* has been recognised; while other writers give it full specific value, and recognise its claim to independent existence as a true species. The rare balm-leaved fig-wort, *S. Scorodonia*, is another species of the genus that in many respects resembles our plant: in fact, a strong family likeness runs through all the different kinds of fig-wort.



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